

LOCKE'S ESSAY



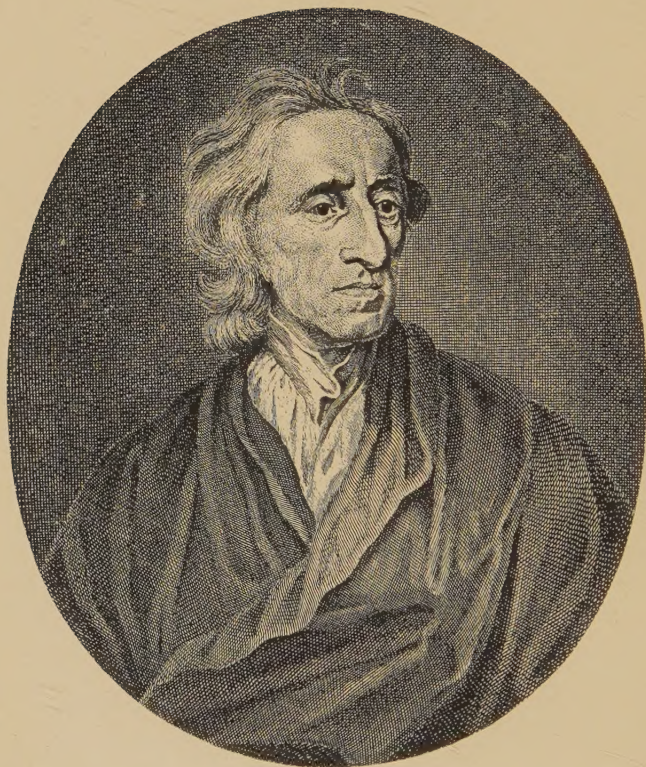
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Locke, John, 1632-1704.
Locke's essay concerning
human understanding

Sister M. Stephen

Room 126.



JOHN LOCKE

1632-1704

From an Engraving by F. Morellan de la Cave, after G. Kneller

LOCKE'S ESSAY CONCERNING HUMAN UNDERSTANDING

BOOKS II AND IV (With omissions)

Selected by
MARY WHITON CALKINS

"To know how to say what other people only think is
what makes men poets and sages"

CHICAGO
THE OPEN COURT PUBLISHING COMPANY

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PREFACE.

THIS condensation of Locke's "Essay Concerning Human Understanding" is printed with a single practical end in view: to present in inexpensive form the essentials of Locke's teaching in metaphysics and in psychology. Book I., except the first, introductory chapter, is omitted, because the innate-idea controversy is a dead issue; Book III. is omitted because it deals with logical and historical considerations. The omissions from Books II. and IV. have been made with regret but, it is hoped, with judgment.

The body of the text has been compared, word for word, with that of Fraser's edition; but in the paragraph headings, orthography, punctuation and use of italics, another edition (the thirty-fifth) has been followed. The title-page is that of the second edition. No bibliographical or historical notes have been added, for Fraser's editing of the "Essay" makes it unnecessary and impertinent for any other person to repeat his work.

Brackets, adopted from the Fraser text, indicate deviations, from the first edition of the "Essay," in the three other editions published in Locke's lifetime and in the French translation made by Coste, but supervised by Locke himself. The most important of these changes are in Book II., chapters VIII. and XXI. The changes in chapter VIII. were first made in the fourth edition; the most important changes in

chapter XXI.—in particular the substitution of sections 28-62 for the original sections, 28-38, were made in the second edition.*

This preface offers an opportunity to urge on students of the "Essay" the advantages of a further reading of Locke. His treatises on social and political subjects, however antiquated the precise problems under discussion, contain the germs of important theories later formulated by other writers; his little work on education has a permanent value both for its constant insistence on the need of regarding the individuality of child or pupil, and for specific counsels of many sorts; his letters, finally, especially those to his young friend and "obstinate lover," Antony Collins, form an invaluable part of the literature of friendship.

For permission to reproduce the title-page of a copy of the second edition of the "Essay," the editor is indebted to the Harvard University library.

* Cf. Fraser's edition, I. p. 330 Note and pp. 375-379.

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* These chapters are not included in this edition of the Essay.

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* These chapters are not included in this edition of the Essay.

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* These chapters are not included in this edition of the *Essay*.

LIFE OF LOCKE.

(From Ueberweg, "History of Modern Philosophy," translated by G. S. Morris, 1873, Vol. II., pp. 81-82.)

JOHN LOCKE, son of a lawyer of the same name, was born at Wrington (sixteen miles from Bristol) on the 29th of August, 1632. He studied at the College of Westminster, and subsequently (beginning in the year 1651) at Christ Church College, Oxford. He pursued with special interest the study of natural science and medicine. The scholastic philosophy left him unsatisfied; the works of Descartes pleased him by their clearness and precision, and by their close connection with modern and independent investigations. In the year 1664 he accompanied the English ambassador, Sir William Swan, as Secretary of Legation to the Brandenburg Court, and resided a year in Berlin. Returning to England, he occupied himself with investigations in natural science, and especially in meteorology. At Oxford, in 1667, he became acquainted with Lord Ashley, afterwards Earl of Shaftesbury, in whose house he resided for a number of years as physician and friend of the Earl. In the year 1668 he accompanied the Earl of Northumberland on a journey through France and Italy. He then directed, in the house of the Earl of Shaftesbury, the education of the latter's son (then sixteen years old). The outlines of his *Essay concerning Human Understanding* were drawn up by Locke in 1670, but the work was not published

until it had been repeatedly revised. His patron having become, in 1672, Lord Chancellor, Locke received from him the office of Secretary of the Presentation of Benefices, which, however, in the following year, when the Lord Chancellor fell into disfavour, he lost. In the years 1675-1679 Locke lived in France, chiefly at Montpellier, in the society of Herbert, the subsequent Earl of Pembroke, to whom he dedicated his *Essay*, and also at Paris, in intercourse with men of scientific eminence. In 1679 Shaftesbury, having become President of the Council, recalled Locke to England. Shaftesbury, however, on account of his opposition to the despotic tendencies of the King, was again deprived of his office, thrown into the Tower, and subsequently tried on charges preferred against him by the Court. Acquitted by his jury, he repaired to Holland, where he was favourably received by the Stadtholder, Prince William of Orange. Thither Locke followed him towards the end of the year 1683, and lived first at Amsterdam, and afterwards, the English Government having demanded his extradition, by turns at Utrecht, Cleves, and Amsterdam, until the year 1688, when in consequence of the revolution through which William of Orange received the English throne, he was able to return to England, where he received the position of Commissioner of Appeals, and afterwards that of a Commissioner of Trade and Plantations. * * * Locke passed the last years of his life mostly at Oates, in the county of Essex, in the house of Sir Francis Masham, whose wife was a daughter of Cudworth. He died there in the seventy-third year of his life, October 28, 1704.

WRITINGS OF LOCKE IN ORDER OF PUBLICATION.

(Adapted from Fraser's "Locke," Appendix.)

PUBLISHED DURING LOCKE'S RESIDENCE IN HOLLAND.

Contributions to the "Bibliothèque Universelle"—
 (a) *Methode Nouvelle de dresser des Recueils*; (b)
 Review of Boyle's "De Specificorum Remediorum cum
Corpusculari Philosophia Concordia"; (c) *Epitome*
of the "Essay," etc. 1686-88

PUBLISHED DURING LOCKE'S RESIDENCE IN LONDON.

Epistola de Tolerantia. March 1689

Translated by Popple in the following summer.

Two Treatises on Government. February 1690

Essay concerning Human Understanding. . . March 1690

Second Letter for Toleration. October 1690

PUBLISHED DURING LOCKE'S RESIDENCE AT OATES, BEFORE THE COMMISSIONERSHIP.

*Some Considerations on the Consequence of Lowering
 the Rate of Interest and Raising the Value of Money.* 1691

A Third Letter of Toleration. 1692

Some Thoughts concerning Education (dedicated to
Clarke of Chipley). July 1693

*Second Edition of the Essay concerning Human Under-
 standing.* 1694

Third Edition of the Essay. 1695

*For Encouraging the Coining of Silver Money, and
 after for keeping it here.* 1695

*Further Considerations concerning Raising the Value
 of Money.* 1695

*The Reasonableness of Christianity as delivered in the
 Scriptures.* June 1695

A Vindication of the Reasonableness of Christianity from Mr. Edwards' Reflections.	1695
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PUBLISHED DURING LOCKE'S RESIDENCE AT OATES, DURING
THE COMMISSIONERSHIP.

Second Vindication of the Reasonableness of Christianity.	1697
A Letter to the Bishop of Worcester (Stillingfleet) concerning some Passages relating to Mr. Locke's Essay of Human Understanding in a Late Discourse of his Lordship's in Vindication of the Trinity. . . .	1697
Mr. Locke's Reply to the Bishop of Worcester's Answer to his Letter.	1697
Mr. Locke's Reply to the Bishop of Worcester's Answer to his Second Letter.	1699
Fourth Edition of Essay Concerning Human Under- standing.	1700

POSTHUMOUS WORKS.

A Paraphrase and Notes on the Epistles of St. Paul to the Galatians, First and Second Corinthians, Ro- mans, and Ephesians. To which is prefixed an Essay for the Understanding of St. Paul's Epistles by con- sulting St. Paul himself.	1705-7
A Discourse of Miracles.	1706
A Fourth Letter for Toleration (fragment).	1706
An Examination of Father Malebranche's Opinion of Seeing all Things in God.	1706
The Conduct of the Understanding.	1706
Memoirs relating to the Life of Anthony, First Earl of Shaftesbury.	1706
Some Familiar Letters Between Mr. Locke and several of his Friends.	1706
The Fundamental Constitutions of Carolina.	1720
Remarks upon some of Mr. Norris's Books, Wherein he asserts Father Malebranche's Opinion of our See- ing all Things in God.	1720
Elements of Natural Philosophy.	1720
Some Thoughts concerning Reading and Study for a Gentleman.	1720

Rules of a Society which met once a-week for their Improvement in Useful Knowledge, and for the Pro- motion of Truth and Christian Charity.	1720
Letters to Anthony Collins and others	1720

THE most satisfactory edition of the complete works of Locke is that of Bishop Law, 1777. The best edition of the "Essay Concerning Human Understanding" is that of A. C. Fraser (Clarendon Press, 1894, 2 volumes). The Essay is published also in the Bohn edition. The completest biography of Locke is that of Fox Bourne (1876). For discussions of Locke's doctrine, cf. the contemporary criticism of Henry Lee: "Anti-Scepticism, or Notes upon each chapter of Mr. Locke's Essay," and Leibniz: "Nouveaux Essais sur l'Entendement Humain" (published 1765, translated by Langley, 1896). Cf. also Cousin, "École Sensualiste, Système de Locke" (in his "Histoire de la Philosophie au XVIII. Siècle," 1829); and Fraser, "Prolegomena" to his edition of the "Essay," and "Locke" (Blackwood Series, 1890).

A N
E S S A Y

CONCERNING

Humane Understanding.

In Four BOOKS.

Written by *JOHN LOCKE*, Gent.

The Second Edition, with large Additions.

Quam bellum est velle confiteri potius nescire quod nescias, quam ista effutientem nauseare, atque ipsum sibi displicere! Cic. de Natur. Deor. l. 1.

L O N D O N,

Printed for *Wm. Awnsham* and *John Churchill*, at the Black Swan in Pater-Noster-Row, and *Samuel Manchip*, at the Ship in Cornhill, near the Royal Exchange, MDCXCIV.

TO THE RIGHT HONOURABLE
THOMAS, EARL OF PEMBROKE AND MONT-
GOMERY.

BARON HERBERT OF CARDIFF, LORD ROSS OF KENDAL,
PAR, FITZHUGH, MARMION, ST. QUINTIN AND SHUR-
LAND; LORD PRESIDENT OF HIS MAJESTY'S MOST
HONOURABLE PRIVY COUNCIL, AND LORD LIEUTENANT
OF THE COUNTY OF WILTS, AND OF SOUTH WALES.

MY LORD,

THIS treatise, which is grown up under your lordship's eye, and has ventured into the world by your order, does now, by a natural kind of right, come to your lordship for that protection which you several years since promised it. It is not that I think any name, how great soever, set at the beginning of a book, will be able to cover the faults that are to be found in it. Things in print must stand and fall by their own worth, or the reader's fancy. But, there being nothing more to be desired for truth than a fair unprejudiced hearing, nobody is more likely to procure me that than your lordship, who are allowed to have got so intimate an acquaintance with her in her more retired recesses. Your lordship is known to have so far advanced your speculations in the most abstract and general knowledge of things, beyond the ordinary reach or common methods, that your allowance and approbation of the design of this treatise will at least preserve it from be-



ing condemned without reading; and will prevail to have those parts a little weighed which might otherwise, perhaps, be thought to deserve no consideration, for being somewhat out of the common road. The imputation of novelty is a terrible charge amongst those who judge of men's heads, as they do of their perukes, by the fashion; and can allow none to be right but the received doctrines. Truth scarce ever yet carried it by vote any where at its first appearance; new opinions are always suspected, and usually opposed, without and other reason but because they are not already common. But truth, like gold, is not the less so for being newly brought out of the mine. It is trial and examination must give it price, and not any antique fashion; and though it be not yet current by the public stamp, yet it may, for all that, be as old as nature, and is certainly not the less genuine. Your lordship can give great and convincing instances of this, whenever you please to oblige the public with some of those large and comprehensive discoveries you have made of truths hitherto unknown, unless to some few, from whom your lordship has been pleased not wholly to conceal them. This alone were a sufficient reason, were there no other, why I should dedicate this Essay to your lordship; and its having some little correspondence with some parts of that nobler and vast system of the sciences your lordship has made so new, exact, and instructive a draught of, I think it glory enough if your lordship permit me to boast that here and there I have fallen into some thoughts not wholly different from yours. If your lordship think fit, that, by your encouragement, this should appear in the world, I hope it may be a reason, some time or other, to lead your lordship farther; and you will allow me to say, that you here give

the world an earnest of something, that, if they can bear with this, will be truly worth their expectation. This, my lord, shows what a present I here make to your lordship; just such as the poor man does to his rich and great neighbour, by whom the basket of flowers or fruit is not ill taken, though he has more plenty of his own growth, and in much greater perfection. Worthless things receive a value when they are made the offerings of respect, esteem, and gratitude; these you have given me so mighty and peculiar reasons to have in the highest degree for your lordship, that if they can add a price to what they go along with proportionable to their own greatness, I can with confidence brag, I here make your lordship the richest present you ever received. This I am sure, I am under the greatest obligation to seek all occasions to acknowledge a long train of favours I have received from your lordship; favours, though great and important in themselves, yet made much more so by the forwardness, concern, and kindness, and other obliging circumstances, that never failed to accompany them. To all this, you are pleased to add that which gives yet more weight and relish to all the rest; you vouchsafe to continue me in some degrees of your esteem, and allow me a place in your good thoughts, I had almost said friendship. This, my lord, your words and actions so constantly show on all occasions, even to others when I am absent, that it is not vanity in me to mention what every body knows; but it would be want of good manners not to acknowledge what so many are witnesses of, and every day tell me I am indebted to your lordship for. I wish they could as easily assist my gratitude, as they convince me of the great and growing engagements it has to your lordship. This I am sure, I should write

of the UNDERSTANDING without having any, if I were not extremely sensible of them, and did not lay hold on this opportunity to testify to the world how much I am obliged to be, and how much I am,

MY LORD,

Your lordship's most humble
and most obedient servant,

JOHN LOCKE.

[*Dorset Court, May 24, 1689.*]

THE EPISTLE TO THE READER.

READER,

I HERE put into thy hands what has been the diversion of some of my idle and heavy hours ; if it has the good-luck to prove so of any of thine, and thou hast but half so much pleasure in reading as I had in writing it, thou wilt as little think thy money, as I do my pains, ill bestowed. Mistake not this for a commendation of my work ; nor conclude, because I was pleased with the doing of it, that therefore I am fondly taken with it now it is done. He that hawks at larks and sparrows, has no less sport, though a much less considerable quarry, than he that flies at nobler game : and he is little acquainted with the subject of this treatise, the Understanding, who does not know, that as it is the most elevated faculty of the soul, so it is employed with a greater and more constant delight than any of the other. Its searches after truth are a sort of hawking and hunting, wherein the very pursuit makes a great part of the pleasure. Every step the mind takes in its progress towards knowledge makes some discovery, which is not only new, but the best, too, for the time at least.

For the understanding, like the eye, judging of objects only by its own sight, cannot but be pleased with what it discovers, having less regret for what has escaped it, because it is unknown. Thus he who has

raised himself above the alms-basket, and not content to live lazily on scraps of begged opinions, sets his own thoughts on work, to find and follow truth, will (whatever he lights on) not miss the hunter's satisfaction; every moment of his pursuit will reward his pains with some delight, and he will have reason to think his time not ill spent, even when he cannot much boast of any great acquisition.

This, reader, is the entertainment of those who let loose their own thoughts, and follow them in writing; which thou oughtest not to envy them, since they afford thee an opportunity of the like diversion, if thou wilt make use of thy own thoughts in reading. It is to them, if they are thy own, that I refer myself; but if they are taken upon trust from others, it is no great matter what they are, they not following truth, but some meaner consideration; and it is not worth while to be concerned what he says or thinks, who say or thinks only as he is directed by another. If thou judgest for thyself, I know thou wilt judge candidly; and then I shall not be harmed or offended, whatever be the censure. For, though it be certain that there is nothing in this treatise of the truth whereof I am not fully persuaded, yet I consider myself as liable to mistakes as I can think thee; and know that this book must stand or fall with thee, not by any opinion I have of it, but thy own. If thou findest little in it new or instructive to thee, thou art not to blame me for it. It was not meant for those that had already mastered this subject, and made a thorough acquaintance with their own understandings, but for my own information, and the satisfaction of a few friends, who acknowledged themselves not to have sufficiently considered it.

Were it fit to trouble thee with the history of this

Essay, I should tell thee, that five or six friends, meeting at my chamber, and discoursing on a subject very remote from this, found themselves quickly at a stand by the difficulties that rose on every side. After we had awhile puzzled ourselves, without coming any nearer a resolution of those doubts which perplexed us, it came into my thoughts, that we took a wrong course; and that, before we set ourselves upon inquiries of that nature, it was necessary to examine our own abilities, and see what objects our understandings were or were not fitted to deal with. This I proposed to the company, who all readily assented; and thereupon it was agreed, that this should be our first inquiry. Some hasty and undigested thoughts, on a subject I had never before considered, which I set down against our next meeting, gave the first entrance into this discourse, which, having been thus begun by chance, was continued by intreaty; written by incoherent parcels; and, after long intervals of neglect, resumed again, as my humour or occasions permitted; and at last, in a retirement, where an attendance on my health gave me leisure, it was brought into that order thou now seest it.

This discontinued way of writing may have occasioned, besides others, two contrary faults, viz., that too little and too much may be said in it. If thou findest any thing wanting, I shall be glad, that what I have writ gives thee any desire that I should have gone farther: if it seems too much to thee, thou must blame the subject; for when I first put pen to paper, I thought all I should have to say on this matter would have been contained in one sheet of paper; but the farther I went, the larger prospect I had: new discoveries led me still on, and so it grew insensibly to the bulk it now ap-

pears in. I will not deny but possibly it might be reduced to a narrower compass than it is; and that some parts of it might be contracted; the way it has been writ in, by catches, and many long intervals of interruption, being apt to cause some repetitions. But, to confess the truth, I am now too lazy or too busy to make it shorter.

I am not ignorant how little I herein consult my own reputation when I knowingly let it go with a fault so apt to disgust the most judicious, who are always the nicest readers. But they who know sloth is apt to content itself with any excuse, will pardon me, if mine has prevailed on me where I think I have a very good one. I will not, therefore, allege in my defence, that the same notion, having different respects, may be convenient or necessary to prove or illustrate several parts of the same discourse; and that so it has happened in many parts of this; but, waiving that, I shall frankly avow, that I have sometimes dwelt long upon the same argument, and expressed it different ways, with a quite different design. I pretend not to publish this Essay for the information of men of large thoughts and quick apprehensions; to such masters of knowledge, I profess myself a scholar, and therefore warn them beforehand not to expect anything here but what, being spun out of my own coarse thoughts, is fitted to men of my own size, to whom, perhaps, it will not be unacceptable that I have taken some pains to make plain and familiar to their thoughts some truths, which established prejudice, or the abstractedness of the ideas themselves, might render difficult. Some objects had need be turned on every side; and when the notion is new, as I confess some of these are to me, or out of the ordinary road, as I suspect they will appear to others, it is not

one simple view of it that will gain it admittance into every understanding, or fix it there with a clear and lasting impression. There are few, I believe, who have not observed in themselves or others, that what in one way of proposing was very obscure, another way of expressing it has made very clear and intelligible; though afterward the mind found little difference in the phrases, and wondered why one failed to be understood more than the other. But every thing does not hit alike upon every man's imagination. We have our understandings no less different than our palates; and he that thinks the same truth shall be equally relished by every one in the same dress, may as well hope to feast every one with the same sort of cookery; the meat may be the same, and the nourishment good, yet every one not be able to receive it with that seasoning; and it must be dressed another way, if you will have it go down with some even of strong constitutions. The truth is, those who advised me to publish it, advised me, for this reason, to publish it as it is: and since I have been brought to let it go abroad, I desire it should be understood by whoever gives himself the pains to read it. I have so little affection to be in print, that if I were not flattered this Essay might be of some use to others, as I think it has been to me, I should have confined it to the view of some friends, who gave the first occasion to it. My appearing therefore in print being on purpose to be as useful as I may, I think it necessary to make what I have to say as easy and intelligible to all sorts of readers as I can. And I had much rather the speculative and quick-sighted should complain of my being in some parts tedious, than that any one, not accustomed to abstract specula-

tions, or prepossessed with different notions, should mistake or not comprehend my meaning.

It will possibly be censured as a great piece of vanity or insolence in me, to pretend to instruct this our knowing age, it amounting to little less when I own that I publish this Essay with hopes that it may be useful to others. But if it may be permitted to speak freely of those who, with a feigned modesty, condemn as useless what they themselves write; methinks it savours much more of vanity or insolence to publish a book for any other end; and he fails very much of that respect he owes the public, who prints, and consequently expects that men should read, that wherein he intends not they should meet with any thing of use to themselves or others: and should nothing else be found allowable in this treatise, yet my design will not cease to be so; and the goodness of my intention ought to be some excuse for the worthlessness of my present. It is that chiefly which secures me from the fear of censure, which I expect not to escape more than better writers. Men's principles, notions, and relishes are so different, that it is hard to find a book which pleases or displeases all men. I acknowledge the age we live in is not the least knowing, and therefore not the most easy to be satisfied. If I have not the good-luck to please, yet nobody ought to be offended with me. I plainly tell all my readers, except half a dozen, this treatise was not at first intended for them; and therefore they need not be at the trouble to be of that number. But yet if any one thinks fit to be angry, and rail at it, he may do it securely; for I shall find some better way of spending my time than in such kind of conservation. I shall always have the satisfaction to have aimed sincerely at truth and usefulness, though in one of the

meanest ways. The commonwealth of learning is not at this time without master-builders, whose mighty designs in advancing the sciences will leave lasting monuments to the admiration of posterity: but every one must not hope to be a Boyle or a Sydenham; and in an age that produces such masters as the great Huygenius, and the incomparable Mr. Newton, with some other of that strain, it is ambition enough to be employed as an under-labourer in clearing the ground a little, and removing some of the rubbish that lies in the way to knowledge; which certainly had been very much more advanced in the world, if the endeavours of ingenious and industrious men had not been much cumbered with the learned but frivolous use of uncouth, affected, or unintelligible terms introduced into the sciences, and there made an art of, to that degree that philosophy, which is nothing but the true knowledge of things, was thought unfit or incapable to be brought into well-bred company and polite conversation. Vague and insignificant forms of speech, and abuse of language, have so long passed for mysteries of science; and hard or misapplied words, with little or no meaning, have, by prescription, such a right to be mistaken for deep learning and height of speculation; that it will not be easy to persuade either those who speak or those who hear them, that they are but the covers of ignorance, and hinderance of true knowledge. To break in upon the sanctuary of vanity and ignorance, will be, I suppose, some service to human understanding: though so few are apt to think they deceive or are deceived in the use of words, or that the language of the sect they are of has any faults in it which ought to be examined or corrected, that I hope I shall be pardoned if I have in the third book dwelt long on this subject;

and endeavored to make it so plain, that neither the inveterateness of the mischief, nor the prevalency of the fashion, shall be any excuse for those who will not take care about the meaning of their own words, and will not suffer the significancy of their expressions to be inquired into.

I have been told that a short epitome of this treatise, which was printed in 1688, was by some condemned without reading, because innate ideas were denied in it; they too hastily concluding, that if innate ideas were not supposed, there would be little left either of the notion or proof of spirits. If any one take the like offence at the entrance of this treatise, I shall desire him to read it through; and then I hope he will be convinced, that the taking away false foundations is not to the prejudice, but advantage, of truth, which is never inured or endangered so much as when mixed with, or built on, falsehood. In the second edition I added as followeth:—

The bookseller will not forgive me, if I say nothing of this second edition, which he has promised, by the correctness of it, shall make amends for the many faults committed in the former. He desires, too, that it should be known, that it has one whole new chapter concerning identity, and many additions and amendments in other places. These, I must inform my reader, are not all new matter, but most of them either farther confirmation of what I had said, or explications, to prevent others being mistaken in the sense of what was formerly printed, and not any variation in me from it: I must only except the alterations I have made in book ii. chap. xxi.

What I had there writ concerning “liberty” and the “will,” I thought deserved as accurate a review as I

was capable of : those subjects having in all ages exercised the learned part of the world with questions and difficulties that have not a little perplexed morality and divinity, those parts of knowledge that men are most concerned to be clear in. Upon a closer inspection into the working of men's minds, and a stricter examination of those motives and views they are termed by, I have found reason somewhat to alter the thoughts I formerly had concerning that which gives the last determination to the will in all voluntary actions. This I cannot forbear to acknowledge to the world, with as much freedom and readiness as I at first published what then seemed to me to be right ; thinking myself more concerned to quit and renounce any opinion of my own, than oppose that of another, when truth appears against it. For it is truth alone I seek, and that will always be welcome to me, when or from whence soever it comes.

But what forwardness soever I have to resign any opinion I have, or to recede from any thing I have writ, upon the first evidence of any error in it ; yet this I must own, that I have not had the good-luck to receive any light from those exceptions I have met with in print against any part of my book ; nor have, from any thing has been urged against it, found reason to alter my sense in any of the points that have been questioned. Whether the subject I have in hand requires often more thought and attention than cursory readers, at least such as are prepossessed, are willing to allow ; or whether any obscurity in my expressions casts a cloud over it, and these notions are made difficult to others' apprehensions in my way of treating them ; so it is, that my meaning, I find, is often mistaken, and I

have not the good-luck to be every where rightly understood.

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BOOK I.

CHAPTER I.

INTRODUCTION.

1. *An inquiry into the understanding, pleasant and useful.*— Since it is the understanding that sets man above the rest of sensible beings, and gives him all the advantage and dominion which he has over them, it is certainly a subject, even for its nobleness, worth our labour to inquire into. The understanding, like the eye, whilst it makes us see and perceive all other things, takes no notice of itself; and it requires art and pains to set it at a distance, and make it its own object. But whatever be the difficulties that lie in the way of this inquiry, whatever it be that keeps us so much in the dark to ourselves, sure I am that all the light we can let in upon our own minds, all the acquaintance we can make with our own understandings, will not only be very pleasant, but bring us great advantage in directing our thoughts in the search of other things.

2. *Design.*— This therefore being my purpose, to inquire into the original, certainty, and extent of human knowledge, together with the grounds and degrees of belief, opinion, and assent, I shall not at present meddle with the physical consideration of the mind, or trouble myself to examine wherein its essence consists or by what motions of our spirits, or alterations

of our bodies, we come to have any sensation by our organs, or any ideas in our understandings; and whether those ideas do, in their formation, any or all of them, depend on matter or not: these are speculations which, however curious and entertaining, I shall decline, as lying out of my way in the design I am now upon. It shall suffice to my present purpose, to consider the discerning faculties of a man, as they are employed about the objects which they have to do with; and I shall imagine I have not wholly misemployed myself in the thoughts I shall have on this occasion, if, in this historical, plain method, I can give any account of the ways whereby our understandings come **to attain** those notions of things we have, and can set down any measures of the certainty of our knowledge, or the grounds of those persuasions which are to be found amongst men, so various, different, and wholly contradictory; and yet asserted somewhere or other with such assurance and confidence, that he that shall take a view of the opinions of mankind, observe their opposition, and at the same time consider the fondness and devotion wherewith they are embraced, the resolution and eagerness wherewith they are maintained, may perhaps have reason to suspect that either there is no such thing as truth at all, or that mankind hath no sufficient means to attain a certain knowledge of it.

3. *Method.*—It is therefore worth while to search out the bounds between opinion and knowledge, and examine by what measures, in things whereof we have no certain knowledge, we ought to regulate our assent, and moderate our persuasions. In order whereunto, I shall pursue this following method:—

First. I shall inquire into the original of those ideas, notions, or whatever else you please to call them, which

a man observes, and is conscious to himself he has in his mind; and the ways whereby the understanding comes to be furnished with them.

Secondly. I shall endeavour to show what knowledge the understanding hath by those ideas, and the certainty, evidence, and extent of it.

Thirdly. I shall make some inquiry into the nature and grounds of faith or opinion; whereby I mean, that assent which we give to any proposition as true, of whose truth yet we have no certain knowledge: and here we shall have occasion to examine the reasons and degrees of assent.

4. *Useful to know the extent of our comprehension.*
— If by this inquiry into the nature of the understanding, I can discover the powers thereof, how far they reach, to what things they are in any degree proportionate, and where they fail us, I suppose it may be of use to prevail with the busy mind of man to be more cautious in meddling with things exceeding its comprehension, to stop when it is at the utmost extent of its tether, and to sit down in a quiet ignorance of those things which, upon examination, are found to be beyond the reach of our capacities. We should not then, perhaps, be so forward, out of an affectation of an universal knowledge, to raise questions, and perplex ourselves and others with disputes, about things to which our understandings are not suited, and of which we cannot frame in our minds any clear or distinct perceptions, or whereof (as it has, perhaps, too often happened) we have not any notions at all. If we can find out how far the understanding can extend its view, how far it has faculties to attain certainty, and in what cases it can only judge and guess, we may

learn to content ourselves with what is attainable by us in this state.

5. *Our capacity suited to our state and concerns.*—For though the comprehension of our understandings comes exceeding short of the vast extent of things, yet we shall have cause enough to magnify the bountiful Author of our being for that proportion and degree of knowledge he has bestowed on us, so far above all the rest of the inhabitants of this our mansion. Men have reason to be well satisfied with what God hath thought fit for them, since he has given them, as St. Peter says, πάντα πρὸς ζῶν καὶ εὐσέβειαν, whatsoever is necessary for the conveniences of life, and information of virtue; and has put within the reach of their discovery, the comfortable provision for this life and the way that leads to a better. How short soever their knowledge may come of an universal or perfect comprehension of whatsoever is, it yet secures their great concernments that they have light enough to lead them to the knowledge of their Maker, and the sight of their own duties. Men may find matter sufficient to busy their heads and employ their hands with variety, delight, and satisfaction, if they will not boldly quarrel with their own constitution, and throw away the blessings their hands are filled with, because they are not big enough to grasp every thing. We shall not have much reason to complain of the narrowness of our minds, if we will but employ them about what may be of use to us; for of that they are very capable: and it will be an unpardonable as well as childish peevishness, if we undervalue the advantages of our knowledge, and neglect to improve it to the ends for which it was given us, because there are some things that

are set out of the reach of it. It will be no excuse to an idle and untoward servant, who would not attend his business by candlelight, to plead that he had not broad sunshine. The candle that is set up in us shines bright enough for all our purposes. The discoveries we can make with this ought to satisfy us; and we shall then use our understandings right, when we entertain all objects in that way and proportion that they are suited to our faculties, and upon those grounds they are capable of being proposed to us; and not peremptorily or intemperately require demonstration, and demand certainty, where probability only is to be had, and which is sufficient to govern all our concerns. If we will disbelieve every thing because we cannot certainly know all things, we shall do much-wat as wisely as he who would not use his legs, but sit still and perish because he had no wings to fly.

6. *Knowledge of our capacity a cure of scépticism and idleness.*—When we know our own strength, we shall the better know what to undertake with hopes of success; and when we have well surveyed the powers of our own minds, and made some estimate what we may expect from them, we shall not be inclined either to sit still, and not set our thoughts on work at all, in despair of knowing any thing; nor, on the other side, question every thing, and disclaim all knowledge, because some things are not to be understood. It is of great use to the sailor to know the length of his line, though he cannot with it fathom all the depths of the ocean; it is well he knows that it is long enough to reach the bottom at such places as are necessary to direct his voyage, and caution him against running upon shoals that may ruin him. Our business here is not to know all things, but those which concern our

conduct. If we can find out those measures whereby a rational creature, put in that state which man is in in this world, may and ought to govern his opinions and actions depending thereon, we need not be troubled that some other things escape our knowledge.

7. *Occasion of this Essay.*—This was that which gave the first rise to this Essay concerning the Understanding. For I thought that the first step towards satisfying several inquiries the mind of man was very apt to run into, was, to take a survey of our own understandings, examine our own powers, and see to what things they were adapted. Till that was done, I suspected we began at the wrong end, and in vain sought for satisfaction in a quiet and sure possession of truths that most concerned us, whilst we let loose our thoughts into the vast ocean of being; as if all that boundless extent were the natural and undoubted possession of our understandings, wherein there was nothing exempt from its decisions, or that escaped its comprehension. Thus men, extending their inquiries beyond their capacities, and letting their thoughts wander into those depths where they can find no sure footing, it is no wonder that they raise questions and multiply disputes, which, never coming to any clear resolution, are proper only to continue and increase their doubts, and to confirm them at last in perfect scepticism. Whereas, were the capacities of our understandings well considered, the extent of our knowledge once discovered, and the horizon found which sets the bounds between the enlightened and dark parts of things — between what is and what is not comprehensible by us — men would, perhaps with less scruple, acquiesce in the avowed ignorance of the one, and employ their

thoughts and discourse with more advantage and satisfaction in the other.

8. *What "idea" stands for.*— Thus much I thought necessary to say concerning the occasion of this inquiry into human understanding. But, before I proceed on to what I have thought on this subject, I must here, in the entrance, beg pardon of my reader for the frequent use of the word "idea" which he will find in the following treatise. It being that term which, I think, serves best to stand for whatsoever is the object of the understanding when a man thinks, I have used it to express whatever is meant by phantasm, notion, species, or whatever it is which the mind can be employed about in thinking; and I could not avoid frequently using it.

I presume it will be easily granted me, that there are such *ideas* in men's minds. Every one is conscious of them in himself; and men's words and actions will satisfy him that they are in others.

Our first inquiry, then, shall be, how they come into the mind.

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BOOK II.

CHAPTER I.

OF IDEAS IN GENERAL, AND THEIR ORIGINAL.

1. *Idea is the object of thinking.*—Every man being conscious to himself, that he thinks, and that which his mind is applied about, whilst thinking, being the ideas that are there, it is past doubt that men have in their mind several ideas, such as are those expressed by the words, “whiteness, hardness, sweetness, thinking, motion, man, elephant, army, drunkenness,” and others: it is in the first place then to be inquired, How he comes by them? I know it is a received doctrine, that men have native ideas and original characters stamped upon their minds in their very first being. This opinion I have at large examined already; and, I suppose, what I have said in the foregoing book will be much more easily admitted, when I have shown whence the understanding may get all the ideas it has, and by what ways and degrees they may come into the mind; for which I shall appeal to every one’s own observation and experience.

2. *All ideas come from sensation or reflection.*—Let us then suppose the mind to be, as we say, white paper, void of all characters, without any ideas; how comes it to be furnished? Whence comes it by that vast store, which the busy and boundless fancy of man

has painted on it with an almost endless variety? Whence has it all the materials of reason and knowledge? To this I answer, in one word, From experience; in that all our knowledge is founded, and from that it ultimately derives itself. Our observation, employed either about external sensible objects, or about the internal operations of our minds, perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking. These two are the fountains of knowledge, from whence all the ideas we have, or can naturally have, do spring.

3. *The object of sensation one source of ideas.*—First. Our senses, conversant about particular sensible objects, do convey into the mind several distinct perceptions of things, according to those various ways wherein those objects do affect them; and thus we come by those ideas we have of yellow, white, heat, cold, soft, hard, bitter, sweet, and all those which we call sensible qualities; which when I say the senses convey into the mind, I mean, they from external objects convey into the mind what produces there those perceptions. This great source of most of the ideas we have, depending wholly upon our senses, and derived by them to the understanding, I call, “sensation.”

4. *The operations of our minds the other source of them.*—Secondly. The other fountain, from which experience furnisheth the understanding with ideas, is the perception of the operations of our own minds within us, as it is employed about the ideas it has got; which operations when the soul comes to reflect on and consider, do furnish the understanding with another set of ideas which could not be had from things without; and such are perception, thinking, doubting, be-

lieving, reasoning, knowing, willing, and all the different actings of our own minds; which we, being conscious of, and observing in ourselves, do from these receive into our understandings as distinct ideas, as we do from bodies affecting our senses. This source of ideas every man has wholly in himself; and though it be not sense as having nothing to do with external objects, yet it is very like it, and might properly enough be called "internal sense." But as I call the other "sensation," so I call this "reflection," the ideas it affords being such only as the mind gets by reflecting on its own operations within itself. By reflection, then, in the following part of this discourse, I would be understood to mean that notice which the mind takes of its own operations, and the manner of them, by reason whereof there come to be ideas of these operations in the understanding. These two, I say, viz., external material things as the objects of sensation, and the operations of our own minds within as the objects of reflection, are, to me, the only originals from whence all our ideas take their beginnings. The term "operations" here, I use in a large sense, as comprehending not barely the actions of the mind about its ideas, but some sort of passions arising sometimes from them, such as is the satisfaction or uneasiness arising from any thought.

5. *All our ideas are of the one or the other of these.*
— The understanding seems to me not to have the least glimmering of any ideas which it doth not receive from one of these two. External objects furnish the mind with the ideas of sensible qualities, which are all those different perceptions they produce in us; and the mind furnishes the understanding with ideas of its own operations.

These, when we have taken a full survey of them, and their several modes, [combinations, and relations,] we shall find to contain all our whole stock of ideas; and that we have nothing in our minds which did not come in one of these two ways. Let any one examine his own thoughts, and thoroughly search into his understanding, and then let him tell me, whether all the original ideas he has there, are any other than of the objects of his senses, or of the operations of his mind considered as objects of his reflection; and how great a mass of knowledge soever he imagines to be lodged there, he will, upon taking a strict view, see that he has not any idea in his mind but what one of these two have imprinted, though perhaps with infinite variety compounded and enlarged by the understanding, as we shall see hereafter.

6. *Observable in children.*—He that attentively considers the state of a child at his first coming into the world, will have little reason to think him stored with plenty of ideas that are to be the matter of his future knowledge. It is by degrees he comes to be furnished with them; and though the ideas of obvious and familiar qualities imprint themselves before the memory begins to keep a register of time or order, yet it is often so late before some unusual qualities come in the way, that there are few men that cannot recollect the beginning of their acquaintance with them: and, if it were worth while, no doubt a child might be so ordered as to have but a very few even of the ordinary ideas till he were grown up to a man. But all that are born into the world being surrounded with bodies that perpetually and diversely affect them, variety of ideas, whether care be taken about it or not, are imprinted on the minds of children. Light and

colours are busy at hand every where when the eye is but open; sounds and some tangible qualities fail not to solicit their proper senses, and force an entrance to the mind; but yet I think it will be granted easily, that if a child were kept in a place where he never saw any other but black and white till he were a man, he would have no more ideas of scarlet or green than he that from his childhood never tasted an oyster or a pine-apple has of those particular relishes.

7. *Men are differently furnished with these according to the different objects they converse with.*—Men then come to be furnished with fewer or more simple ideas from without, according as the objects they converse with afford greater or less variety; and from the operations of their minds within, according as they more or less reflect on them. For, though he that contemplates the operations of his mind cannot but have plain and clear ideas of them; yet, unless he turn his thoughts that way, and considers them attentively, he will no more have clear and distinct ideas of all the operations of his mind, and all that may be observed therein, than he will have all the particular ideas of any landscape, or of the parts and motions of a clock, who will not turn his eyes to it, and with attention heed all the parts of it. The picture or clock may be so placed, that they may come in his way every day; but yet he will have but a confused idea of all the parts they are made of, till he applies himself with attention to consider them each in particular.

8. *Ideas of reflection later, because they need attention.*—And hence we see the reason why it is pretty late before most children get ideas of the operations of their own minds; and some have not any very clear or perfect ideas of the greatest part of them all their

lives:—because, though they pass there continually, yet like floating visions, they make not deep impressions enough to leave in the mind, clear, distinct, lasting ideas, till the understanding turns inwards upon itself, reflects on its own operations, and makes them the objects of its own contemplation. Children, when they come first into it, are surrounded with a world of new things, which, by a constant solicitation of their senses, draw the mind constantly to them, forward to take notice of new, and apt to be delighted with the variety of changing objects. Thus the first years are usually employed and diverted in looking abroad. Men's business in them is to acquaint themselves with what is to be found without; and so, growing up in a constant attention to outward sensations, seldom make any considerable reflection on what passes within them till they come to be of riper years; and some scarce ever at all.

9. *The soul begins to have ideas when it begins to perceive.*—To ask, at what time a man has first any ideas, is to ask when he begins to perceive; having ideas, and perception, being the same thing. I know it is an opinion, that the soul always thinks; and that it has the actual perception of ideas in itself constantly, as long as it exists; and that actual thinking is as inseparable from the soul, as actual extension is from the body: which if true, to inquire after the beginning of a man's ideas is the same as to inquire after the beginning of his soul. For by this account, soul and its ideas, as body and its extension, will begin to exist both at the same time.

10. *The soul thinks not always; for this wants proofs.*—But whether the soul be supposed to exist antecedent to, or coeval with, or some time after, the

first rudiments or organization, or the beginnings of life in the body, I leave to be disputed by those who have better thought of that matter. I confess myself to have one of those dull souls that doth not perceive itself always to contemplate ideas; nor can conceive it any more necessary for the soul always to think, than for the body always to move; the perception of ideas being, as I conceive, to the soul, what motion is to the body: not its essence, but one of its operations; and, therefore, though thinking be supposed never so much the proper action of the soul, yet it is not necessary to suppose that it should be always thinking, always in action: that, perhaps, is the privilege of the infinite Author and Preserver of things, “who never slumbers nor sleeps;” but it is not competent to any finite being, at least not to the soul of man. We know certainly, by experience, that we sometimes think; and thence draw this infallible consequence,—that there is something in us that has a power to think; but whether that substance perpetually thinks, or no, we can be no farther assured than experience informs us. For to say, that actual thinking is essential to the soul and inseparable from it, is to beg what is in question, and not to prove it by reason; which is necessary to be done, if it be not a self-evident proposition. But whether this—that “the soul always thinks,” be a self-evident proposition, that everybody assents to on first hearing, I appeal to mankind. [It is doubted whether I thought all last night, or no; the question being about a matter of fact, it is begging it to bring as a proof for it an hypothesis which is the very thing in dispute; by which way one may prove any thing; and it is but supposing that all watches, whilst the balance beats, think, and it is sufficiently proved, and past doubt, that my watch thought

all last night. But he that would not deceive himself ought to build his hypothesis on matter of fact, and make it out by sensible experience, and not presume on matter of fact because of his hypothesis; that is, because he supposes it to be so; which way of proving amounts to this,—that I must necessarily think all last night, because another supposes I always think, though I myself cannot perceive that I always do so.

But men in love with their opinions may not only suppose what is in question, but allege wrong matter of fact. How else could any one make it an inference of mine, that a thing is not, because we are not sensible of it in our sleep? I do not say, there is no soul in a man because he is not sensible of it in his sleep; but I do say, he cannot think at any time, waking or sleeping, without being sensible of it. Our being sensible of it is not necessary to any thing but to our thoughts; and to them it is, and to them it will always be, necessary, till we can think without being conscious of it.]

II. *It is not always conscious of it.*—I grant that the soul in a waking man is never without thought, because it is the condition of being awake; but whether sleeping without dreaming be not an affection of the whole man, mind as well as body, may be worth a waking man's consideration; it being hard to conceive that any thing should think and not be conscious of it. If the soul doth think in a sleeping man without being conscious of it, I ask, whether, during such thinking, it has any pleasure or pain, or be capable of happiness or misery? I am sure the man it not, no more than the bed or earth he lies on. For to be happy or miserable without being conscious of it, seems to me utterly inconsistent and impossible. Or if it be possible that the soul can, whilst the body is sleeping, have its thinking,

enjoyments, and concerns, its pleasure or pain, apart, which the man is not conscious of, nor partakes in, it is certain that Socrates asleep and Socrates awake is not the same person; but his soul when he sleeps, and Socrates the man, consisting of body and soul, when he is waking, are two persons; since waking Socrates has no knowledge of, or concernment for that happiness or misery of his soul, which it enjoys alone by itself whilst he sleeps, without perceiving any thing of it, no more than he has for the happiness or misery of a man in the Indies, whom he knows not. For if we take wholly away all consciousness of our actions and sensations, especially of pleasure and pain, and the concernment that accompanies it, it will be hard to know wherein to place personal identity.

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CHAPTER II.

OF SIMPLE IDEAS.

I. *Uncompounded appearances.*—The better to understand the nature, manner, and extent of our knowledge, one thing is carefully to be observed concerning the ideas we have; and that is, that some of them are simple, and some complex.

Though the qualities that affect our senses are, in the things themselves, so united and blended that there is no separation, no distance between them; yet it is plain the ideas they produce in the mind enter by the senses simple and unmixed. For though the sight and touch often take in from the same object, at the same time, different ideas — as a man sees at once motion and

colour, the hand feels softness and warmth in the same piece of wax — yet the simple ideas thus united in the same subject are as perfectly distinct as those that come in by different senses ; the coldness and hardness which a man feels in a piece of ice being as distinct ideas in the mind as the smell and whiteness of a lily, or as the taste of sugar and smell of a rose : and there is nothing can be plainer to a man than the clear and distinct perception he has of those simple ideas ; which, being each in itself uncompounded, contains in it nothing but one uniform appearance or conception in the mind, and is not distinguishable into different ideas.

2. *The mind can neither make nor destroy them.*— These simple ideas, the materials of all our knowledge, are suggested and furnished to the mind only by those two ways above mentioned, viz., sensation and reflection. When the understanding is once stored with these simple ideas, it has the power to repeat, compare, and unite them, even to an almost infinite variety, and so can make at pleasure new complex ideas. But it is not in the power of the most exalted wit or enlarged understanding, by any quickness or variety of thought, to invent or frame one new simple idea in the mind, not taken in by the ways before mentioned ; nor can any force of the understanding destroy those that are there : the dominion of man in this little world of his own understanding, being much-what the same as it is in the great world of visible things, wherein his power, however managed by art and skill, reaches no farther than to compound and divide the materials that are made to his hand but can do nothing towards the making the least particle of new matter, or destroying one atom of what is already in being. The same inability will every one find in himself, who shall go about to

fashion in his understanding any simple idea not received in by his senses from external objects, or by reflection from the operations of his own mind about them. I would have any one try to fancy any taste which had never affected his palate, or frame the idea of a scent he had never smelt; and when he can do this, I will also conclude, that a blind man hath *ideas* of colours, and a deaf man true, distinct notions of sounds.

3. This is the reason why, though we cannot believe it impossible to God to make a creature with other organs, and more ways to convey into the understanding the notice of corporeal things than those five as they are usually counted, which he has given to man; yet I think it is not possible for any one to imagine any other qualities in bodies, howsoever constituted, whereby they can be taken notice of, besides sounds, tastes, smells, visible and tangible qualities. And had mankind been made with but four senses, the qualities then which are the objects of the fifth sense had been as far from our notice, imagination, and conception, as now any belonging to a sixth, seventh, or eighth sense can possibly be; which, whether yet some other creatures, in some other parts of this vast and stupendous universe, may not have, will be a great presumption to deny. He that will not set himself proudly at the top of all things, but will consider the immensity of this fabric, and the great variety that is to be found in this little and inconsiderable part of it which he has to do with, may be apt to think, that in other mansions of it there may be other and different intelligible beings, of whose faculties he has as little knowledge or apprehension, as a worm shut up in one drawer of a cabinet hath of the senses or understanding of a man; such variety and excellency being suitable to the wisdom and

power of the Maker. I have here followed the common opinion of man's having but five senses, though perhaps there may be justly counted more; but either supposition serves equally to my present purpose.

CHAPTER III.

OF SIMPLE IDEAS OF SENSE.

I. *Division of simple ideas.*—The better to conceive the ideas we receive from sensation, it may not be amiss for us to consider them in reference to the different ways whereby they make their approaches to our minds, and make themselves perceivable by us.

First, then, there are some which come into our minds by one sense only.

Secondly. There are others that convey themselves into the mind by more senses than one.

Thirdly. Others that are had from reflection only.

Fourthly. There are some that make themselves way, and are suggested to the mind, by all the ways of sensation and reflection.

We shall consider them apart under these several heads.

I. There are some ideas which have admittance only through one sense, which is peculiarly adapted to receive them. Thus light and colours, as white, red, yellow, blue, with their several degrees or shades and mixtures, as green, scarlet, purple, sea-green, and the rest, come in only by the eyes; all kinds of noises, sounds, and tones, only by the ears; the several tastes and smells, by the nose and palate. And if these organs, or the nerves which are the conduits to convey them from without to their audience in the brain, the

mind's presence-room (as I may so call it), are, any of them, so disordered as not to perform their functions, they have no postern to be admitted by, no other way to bring themselves into view, and be received by the understanding.

The most considerable of those belonging to the touch are heat, and cold, and solidity; all the rest — consisting almost wholly in the sensible configuration, as smooth and rough; or else more or less firm adhesion of the parts, as hard and soft, tough and brittle — are obvious enough.

2. I think it will be needless to enumerate all the particular simple ideas belonging to each sense. Nor indeed is it possible if we would, there being a great many more of them belonging to most of the senses than we have names for. The variety of smells, which are as many almost, if not more, than species of bodies in the world, do most of them want names. *Sweet* and *stinking* commonly serve our turn for these ideas, which in effect is little more than to call them pleasing or displeasing; though the smell of a rose and violet, both sweet, are certainly very distinct ideas. Nor are the different tastes that by our palates we receive ideas of, much better provided with names. *Sweet*, *bitter*, *sour*, *harsh*, and *salt*, are almost all the epithets we have to denominate that numberless variety of relishes which are to be found distinct, not only in almost every sort of creatures, but in the different parts of the same plant, fruit, or animal. The same may be said of colours and sounds. I shall therefore, in the account of simple ideas I am here giving, content myself to set down only such as are most material to our present purpose, or are in themselves less apt to be taken notice of, though they are very frequently the ingredients of

our complex ideas; amongst which I think I may well account "solidity," which therefore I shall treat of in the next chapter.

CHAPTER IV.

IDEA OF SOLIDITY.

1. *We receive this idea from touch.*—The idea of solidity we receive by our touch; and it arises from the resistance which we find in body to the entrance of any other body into the place it possesses, till it has left it. There is no idea which we receive more constantly from sensation than solidity. Whether we move or rest, in what posture soever we are, we always feel something under us that supports us, and hinders our farther sinking downwards; and the bodies which we daily handle make us perceive that whilst they remain between them, they do, by an insurmountable force, hinder the approach of the parts of our hands that press them. That which thus hinders the approach of two bodies, when they are moving one towards another, I call "solidity." I will not dispute whether this acceptance of the word "solid" be nearer to its original signification than that which mathematicians use it in; it suffices that, I think, the common notion of "solidity," will allow, if not justify, this use of it; but if any one think it better to call it "impenetrability," he has my consent. Only I have thought the term "solidity" the more proper to express this idea, not only because of its vulgar use in that sense, but also because it carries something more of positive in it than "impenetrability," which is negative, and is, perhaps, more a consequence of solidity than solidity itself. This, of all

other, seems the idea most intimately connected with and essential to body, so as nowhere else to be found or imagined but only in matter; and though our senses take no notice of it but in masses of matter, of a bulk sufficient to cause a sensation in us; yet the mind, having once got this idea from such grosser sensible bodies, traces it farther and considers it, as well as figure, in the minutest particle of matter that can exist, and finds it inseparably inherent in body, wherever or however modified.

2. *Solidity fills space.*— This is the idea which belongs to body, whereby we conceive it to fill space. The idea of which filling of space is, that where we imagine any space taken up by a solid substance, we conceive it so to possess it that it excludes all other solid substances, and will for ever hinder any two other bodies, that move towards one another in a straight line, from coming to touch one another, unless it removes from between them in a line not parallel to that which they move in. This idea of it, the bodies which we ordinary handle sufficiently furnish us with.

3. *Distinct from space.*— This resistance, whereby it keeps other bodies out of the space which it possesses, is so great that no force, how great soever, can surmount it. All the bodies in the world, pressing a drop of water on all sides, will never be able to overcome the resistance which it will make, as soft as it is, to their approaching one another, till it be removed out of their way: whereby our idea of solidity is distinguished both from pure space, which is capable neither of resistance nor motion, and from the ordinary idea of hardness. For a man may conceive two bodies at a distance so as they may approach one another without touching or displacing any solid thing till their superficies come to

meet ; whereby, I think, we have the clear idea of space without solidity. For (not to go so far as annihilation of any particular body), I ask, whether a man cannot have the idea of the motion of one single body alone, without any other succeeding immediately into its place? I think it is evident he can : the idea of motion in one body no more including the idea of motion in another, than the idea of a square figure in one body includes the idea of a square figure in another. I do not ask, whether bodies do so exist, that the motion of one body cannot really be without the motion of another. To determine this either way is to beg the question for or against a *vacuum*. But my question is, whether one cannot have the idea of one body moved, whilst others are at rest? And I think this no one will deny : if so, then the place it deserted gives us the idea of pure space without solidity, whereinto another body may enter without either resistance or protrusion of any thing. When the sucker in a pump is drawn, the space it filled in the tube is certainly the same, whether any other body follows the motion of the sucker or not : nor does it imply a contradiction that upon the motion of one body, another that is only contiguous to it should not follow it. The necessity of such a motion is built only on the supposition, that the world is full, but not on the distinct ideas of space and solidity ; which are as different as resistance and not-resistance, protrusion and not-protrusion. And that men have ideas of space without body, their very disputes about a *vacuum* plainly demonstrate, as is showed in another place.

4. *From hardness.*—Solidity is hereby also differed from hardness, in that solidity consists in repletion, and so an utter exclusion of other bodies out of the space it possesses ; but hardness, in a firm cohesion

of the parts of matter, making up masses of a sensible bulk, so that the whole does not easily change its figure. And, indeed, *hard* and *soft* are names that we give to things only in relation to the constitutions of our own bodies; that being generally called “hard” by us which will put us to pain sooner than change figure by the pressure of any part of our bodies; and that, on the contrary, “soft” which changes the situation of its parts upon an easy and unpainful touch.

But this difficulty of changing the situation of the sensible parts amongst themselves, or of the figure of the whole, gives no more solidity to the hardest body in the world than to the softest; nor is an adamant one jot more solid than water. For though the two flat sides of two pieces of marble will more easily approach each other, between which there is nothing but water or air, than if there be a diamond between them; yet it is not that the parts of the diamond are more solid than those of water, or resist more, but because the parts of water being more easily separable from each other, they will by a side-motion be more easily removed and give way to the approach of two pieces of marble: but if they could be kept from making place by that side-motion, they would eternally hinder the approach of these two pieces of marble as much as the diamond; and it would be as impossible by any force to surmount their resistance, as to surmount the resistance of the parts of a diamond. The softest body in the world will as invincibly resist the coming together of any two other bodies, if it be not put out of the way, but remain between them, as the hardest that can be found or imagined. He that shall fill a yielding soft body well with air or water will quickly find its resistance: and he that thinks that nothing but bodies that are hard can

keep his hands from approaching one another, may be pleased to make a trial with the air enclosed in a football. [The experiment I have been told was made at Florence, with a hollow globe of gold filled with water, and exactly closed, farther shows the solidity of so soft a body as water. For, the golden globe thus filled being put into a press which was driven by the extreme force of screws, the water made itself way through the pores of that very close metal, and, finding no room for a nearer approach of its particles within, got to the outside, where it rose like a dew, and so fell in drops before the sides of the globe could be made to yield to the violent compression of the engine that squeezed it.]

5. *On solidity depends impulse, resistance, and protrusion.*—By this idea of solidity is the extension of body distinguished from the extension of space: the extension of body being nothing but the cohesion or continuity of solid, separable, movable parts; and the extension of space, the continuity of unsolid, inseparable, and immovable parts. Upon the solidity of bodies also depends their mutual impulse, resistance, and protrusion. Of pure space, then, and solidity, there are several (amongst which I confess myself one) who persuade themselves they have clear and distinct ideas: and that they can think on space without any thing in it that resists or is protruded by body. This is the idea of pure space, which they think they have as clear as any idea they can have of the extension of body; the idea of the distance between the opposite parts of a concave superficies being equally as clear without as with the idea of any solid parts between; and on the other side they persuade themselves that they have, distinct from that of pure space, the idea of something that fills space, that can be protruded by the impulse of

other bodies, or resist their motion. If there be others that have not these two ideas distinct, but confound them, and make but one of them, I know not how men who have the same idea under different names, or different ideas under the same name, can in that case talk with one another, any more than a man who, not being blind or deaf, has distinct ideas of the colour of scarlet and the sound of a trumpet, would discourse concerning scarlet-colour with the blind man I mention in another place, who fancied that the idea of scarlet was like the sound of a trumpet.

6. *What it is.*—If any one asks me, what this solidity is, I send him to his senses to inform him: let him put a flint or a football between his hands, and then endeavor to join them, and he will know. If he thinks this not a sufficient explication of solidity, what it is, and wherein it consists, I promise to tell him what it is, and wherein it consists, when he tells me what thinking is, or wherein it consists; or explains to me what extension or motion is, which perhaps seems much easier. The simple ideas we have are such as experience teaches them us; but if, beyond that, we endeavour by words to make them clearer in the mind, we shall succeed no better than if we went about to clear up the darkness of a blind man's mind by talking, and to discourse into him the ideas of light and colours. The reason of this I shall show in another place.

CHAPTER V.

OF SIMPLE IDEAS OF DIVERS SENSES.

THE ideas we get by more than one sense are of space or extension, figure, rest and motion: for these

make perceivable impressions both on the eyes and touch; and we can receive and convey into our minds the ideas of the extension, figure, motion, and rest of bodies, both by seeing and feeling. But by having occasion to speak more at large of these in another place, I here only enumerate them.

CHAPTER VI.

OF SIMPLE IDEAS OF REFLECTION.

1. *Simple ideas of reflection are the operations of the mind about its other ideas.*—The mind, receiving the ideas mentioned in the foregoing chapters from without, when it turns its view inward upon itself, and observes its own actions about those ideas it has, takes from thence other ideas, which are as capable to be the objects of its contemplation as any of those it received from foreign things.

2. *The idea of perception, and idea of willing, we have from reflection.*—The two great and principal actions of the mind, which are most frequently considered, and which are so frequent that every one that pleases may take notice of them in himself, are these two: perception or thinking, and volition or willing. [The power of thinking is called “the understanding,” and the power of volition is called “the will;” and these two powers or abilities in the mind are denominated “faculties.”] Of some of the modes of these simple ideas of reflection, such as are remembrance, discerning, reasoning, judging, knowledge, faith, &c., I shall have occasion to speak hereafter.

CHAPTER VII.

OF SIMPLE IDEAS OF BOTH SENSATION AND REFLECTION.

1. *Pleasure and pain.*—There be other simple ideas which convey themselves into the mind by all the ways of sensation and reflection; viz., pleasure or delight, and its opposite, pain or uneasiness; power, existence, unity.

2. Delight or uneasiness, one or other of them, join themselves to almost all our ideas both of sensation and reflection; and there is scarce any affection of our senses from without, any retired thought of our mind within, which is not able to produce in us pleasure or pain. By “pleasure” and “pain,” I would be understood to signify whatsoever delights or molests us; whether it arises from the thoughts of our minds, or any thing operating on our bodies. For whether we call it “satisfaction, delight, pleasure, happiness,” &c., on the one side; or “uneasiness, trouble, pain, torment, anguish, misery,” &c., on the other; they are still but different degrees of the same thing, and belong to the ideas of pleasure and pain, delight or uneasiness; which are the names I shall most commonly use for those two sorts of ideas.

3. The infinite wise Author of our being —¹ having given us the power over several parts of our bodies, to move or keep them at rest as we think fit, and also by the motion of them to move ourselves and other contiguous bodies, in which consist all the actions of our body; having also given a power to our minds, in several instances, to choose amongst its ideas which it will think on, and to pursue the inquiry of this or that subject with consideration and attention —

to excite us to these actions of thinking and motion that we are capable of, has been pleased to join to several thoughts and several sensations a perception of *delight*. If this were wholly separated from all our outward sensations and inward thoughts, we should have no reason to prefer one thought or action to another, negligence to attention, or motion to rest: and so we should neither stir our bodies, nor employ our minds; but let our thoughts (if I may so call it) run adrift, without any direction or design; and suffer the ideas of our minds, like unregarded shadows, to make their appearances there as it happened, without attending to them: in which state man, however furnished with the faculties of understanding and will, would be a very idle, unactive creature, and pass his time only in a lazy, lethargic dream. It has therefore pleased our wise Creator to annex to several objects, and to the ideas which we receive from them, as also to several of our thoughts, a concomitant pleasure, and that in several objects to several degrees, that those faculties which he had endowed us with might not remain wholly idle and unemployed by us.

4. *Pain* has the same efficacy and use to set us on work that pleasure has, we being as ready to employ our faculties to avoid that, as to pursue this: only this is worth our consideration — that pain is often produced by the same objects and ideas that produce pleasure in us. This their near conjunction, which makes us often feel pain in the sensations where we expected pleasure, gives us new occasion of admiring the wisdom and goodness of our Maker, who, designing the preservation of our being, has annexed pain to the application of many things to our bodies, to warn us of the harm that they will do, and as advices to

withdraw from them. But He, not designing our preservation barely, but the preservation of every part and organ in its perfection, hath in many cases annexed pain to those very ideas which delight us. Thus heat, that is very agreeable to us in one degree, by a little greater increase of it proves no ordinary torment; and the most pleasant of all sensible objects, light itself, if there be too much of it, if increased beyond a due proportion to our eyes, causes a very painful sensation: which is wisely and favourably so ordered by nature, that when any object does by the vehemency of its operation disorder the instruments of sensation, whose structures cannot but be very nice and delicate, we might by the pain be warned to withdraw before the organ be quite put out of order, and so be unfitted for its proper functions for the future. The consideration of those objects that produce it may well persuade us, that this is the end or use of pain: for though great light be insufferable to our eyes, yet the highest degree of darkness does not at all disease them, because that causing no disorderly motion in it, leaves that curious organ unharmed in its natural state. But yet excess of cold as well as heat pains us because it is equally destructive to that temper which is necessary to the preservation of life, and the exercise of the several functions of the body, and which consists in a moderate degree of warmth, or, if you please, a motion of the insensible parts of our bodies confined within certain bounds.

5. Beyond all this, we may find another reason why God hath scattered up and down several degrees of pleasure and pain in all the things that environ and affect us, and blended them together in all that our thoughts and senses have to do with; that we, find-

ing imperfection, dissatisfaction, and want of complete happiness in all the enjoyments which the creatures can afford us, might be led to seek it in the enjoyment of Him “with whom there is fulness of joy, and at whose right hand are pleasures for evermore.”

6. *Pleasure and pain*.—Though what I have here said may not perhaps make the ideas of pleasure and pain clearer to us than our own experience does, which is the only way that we are capable of having them; yet the consideration of the reason why they are annexed to so many other ideas, serving to give us due sentiments of the wisdom and goodness of the Sovereign Disposer of all things, may not be unsuitable to the main end of these inquiries: the knowledge and veneration of Him being the chief end of all our thoughts, and the proper business of all our understandings.

7. *Existence and unity*.—Existence and unity are two other ideas that are suggested to the understanding by every object without, and every idea within. When ideas are in our minds, we consider them as being actually there, as well as we consider things to be actually without us: which is, that they exist, or have existence: and whatever we can consider as one thing, whether a real being or idea, suggests to the understanding the idea of unity.

8. *Power*.—Power also is another of those simple ideas which we receive from sensation and reflection. For, observing in ourselves that we do and can think, and that we can at pleasure move several parts of our bodies which were at rest; the effects also that natural bodies are able to produce in one another occurring

every moment to our senses, we both these ways get the idea of power.

9. *Succession*.— Besides these there is another idea, which though suggested by our senses, yet is more constantly offered us by what passes in our minds; and that is the idea of succession. For if we look immediately into ourselves, and reflect on what is observable there, we shall find our ideas always, whilst we are awake or have any thought, passing in train, one going and another coming without intermission.

10. *Simple ideas the materials of all our knowledge*.— These, if they are not all, are at least (as I think) the most considerable of those simple ideas which the mind has, and out of which is made all its other knowledge: all of which it receives only by the two forementioned ways of sensation and reflection.

Nor let any one think these too narrow bounds for the capacious mind of man to expatiate in, which takes its flight farther than the stars, and cannot be confined by the limits of the world; that extends its thoughts often even beyond the utmost expansion of matter, and makes excursions into that incomprehensible inane. I grant all this; but desire any one to assign any simple idea which is not received from one of those inlets before mentioned, or any complex idea not made out of those simple ones. Nor will it be so strange to think these few simple ideas sufficient to employ the quickest thought or largest capacity, and to furnish the materials of all that various knowledge and more various fancies and opinions of all mankind, if we consider how many words may be made out of the various composition of twenty-four letters; or, if, going one step farther, we will but reflect on the va-

riety of combinations may be made with barely one of the above-mentioned ideas, viz., number, whose stock is inexhaustible and truly infinite; and what a large and immense field doth extension alone afford the mathematicians!

CHAPTER VIII.

SOME FARTHER CONSIDERATIONS CONCERNING OUR SIMPLE IDEAS OF SENSATION.

1. *Positive ideas from privative causes.*—Concerning the simple ideas of sensation it is to be considered, that whatsoever is so constituted in nature as to be able by affecting our senses to cause any perception in the mind, both thereby produce in the understanding a simple idea; which, whatever be the external cause of it, when it comes to be taken notice of by our discerning faculty, it is by the mind looked on and considered there to be a real positive idea in the understanding, as much as any other whatsoever; though perhaps the cause of it be but a privation in the subject.

2. Thus the ideas of heat and cold, light and darkness, white and black, motion and rest, are equally clear and positive ideas in the mind; though perhaps some of the causes which produce them are barely privations in those subjects from whence our senses derive those ideas. These the understanding, in its view of them, considers all as distinct positive ideas without taking notice of the causes that produce them; which is an inquiry not belonging to the idea as it is in the understanding, but to the nature of the things existing without us. These are two very differ-

ent things, and carefully to be distinguished; it being one thing to perceive and know the idea of white or black, and quite another to examine what kind of particles they must be, and how ranged in the superficies, to make any object appear white or black.

3. A painter or dyer who never inquired into their causes, hath the ideas of white and black and other colours as clearly, perfectly, and distinctly in his understanding, and perhaps more distinctly than the philosopher who hath busied himself in considering their natures, and thinks he knows how far either of them is in its cause positive or privative; and the idea of black is no less positive in his mind than that of white, however the cause of that colour in the external object may be only a privation.

4. If it were the design of my present undertaking to inquire into the natural causes and manner of perception, I should offer this as a reason why a privative cause might, in some cases at least, produce a positive idea, viz., that all sensation being produced in us only by different degrees and modes of motion in our animal spirits, variously agitated by external objects, the abatement of any former motion must as necessarily produce a new sensation as the variation or increase of it; and so introduce a new idea, which depends only on a different motion of the animal spirits in that organ.

5. But whether this be so or not I will not here determine, but appeal to every one's own experience, whether the shadow of a man, though it consists of nothing but the absence of light (and the more the absence of light is, the more discernible is the shadow), does not, when a man looks on it, cause as clear and positive an idea in his mind as a man himself,

though covered over with clear sunshine! And the picture of a shadow is a positive thing. Indeed, we have negative names, [which stand not directly for positive ideas, but for their absence, such as *insipid*, *silence*, *nihil*, &c., which words denote positive ideas, *v. g.*, *taste*, *sound*, *being*, with a signification of their absence.]

6. *Positive ideas from privative causes.*—And thus one may truly be said to see darkness. For, supposing a hole perfectly dark, from whence no light is reflected, it is certain one may see the figure of it, or it may be painted; or whether the ink I write with make any other idea, is a question. The privative causes I have here assigned of positive ideas are according to the common opinion; but, in truth, it will be hard to determine whether there be really any ideas from a privative cause, till it be determined whether rest be any more a privation than motion.

7. *Ideas in the mind, qualities in bodies.*—To discover the nature of our ideas the better, and to discourse of them intelligibly, it will be convenient to distinguish them, as they are ideas or perceptions in our minds, and as they are modifications of matter in the bodies that cause such perceptions in us; that so we may not think (as perhaps usually is done) that they are exactly the images and resemblances of something inherent in the subject; most of those of sensation being in the mind no more the likeness of something existing without us than the names that stand for them are the likeness of our ideas, which yet upon hearing they are apt to excite in us.

8. Whatsoever the mind perceives in itself, or is the immediate object of perception, thought, or understanding, that I call “idea;” and the power to

produce any idea in our mind, I call "quality" of the subject wherein that power is. Thus a snowball having the power to produce in us the ideas of white, cold, and round, the powers to produce those ideas in us as they are in the snowball, I call "qualities;" and as they are sensations or perceptions in our understandings, I call them "ideas;" which ideas, if I speak of them sometimes as in the things themselves, I would be understood to mean those qualities in the objects which produce them in us.

9. *Primary qualities*.—[Qualities thus considered in bodies are, First, such as are utterly inseparable from the body, in what estate soever it be;] and such as, in all the alterations and changes it suffers, all the force can be used upon it, it constantly keeps; and such as sense constantly finds in every particle of matter which has bulk enough to be perceived, and the mind finds inseparable from every particle of matter, though less than to make itself singly be perceived by our senses: *v. g.*, take a grain of wheat, divide it into two parts, each part has still solidity, extension, figure, and mobility; divide it again, and it retains still the same qualities: and so divide it on till the parts become insensible, they must retain still each of them all those qualities. For, division (which is all that a mill or pestle or any other body does upon another, in reducing it to insensible parts) can never take away either solidity, extension, figure, or mobility from any body, but only makes two or more distinct separate masses of matter of that which was but one before; all which distinct masses, reckoned as so many distinct bodies, after division, make a certain number. [These I call *original* or *primary* qualities of body, which I think we may observe to produce simple ideas in us,

viz., solidity, extension, figure, motion or rest, and number.

10. *Secondary qualities*.—Secondly. Such qualities, which in truth are nothing in the objects themselves, but powers to produce various sensations in us by their primary qualities, *i. e.*, by the bulk, figure, texture, and motion of their insensible parts, as colours, sounds, tastes, &c., these I call *secondary* qualities. To these might be added a third sort, which are allowed to be barely powers, though they are as much real qualities in the subject as those which I, to comply with the common way of speaking, call qualities, but, for distinction, *secondary* qualities. For, the power in fire to produce a new colour or consistency in wax or clay, by its primary qualities, is as much a quality in fire as the power it has to produce in me a new idea or sensation of warmth or burning, which I felt not before, by the same primary qualities, viz., the bulk, texture, and motion of its insensible parts.]

11. [*How primary qualities produce their ideas*.—The next thing to be considered is, how bodies produce ideas in us; and that is manifestly by impulse, the only way which we can conceive bodies to operate in.]

12. If, then, external objects be not united to our minds when they produce ideas therein, and yet we perceive these original qualities in such of them as singly fall under our senses, it is evident that some motion must be thence continued by our nerves, or animal spirits, by some parts of our bodies, to the brains or the seat of sensation, there to produce in our minds the particular ideas we have of them. And since the extension, figure, number, and motion of bodies of an observable bigness, may be perceived at a distance by the sight, it is evident some singly imperceptible bod-

ies must come from them to the eyes, and thereby convey to the brain some motion which produces these ideas which we have of them in us.

13. *How secondary.*—After the same manner that the ideas of these original qualities are produced in us, we may conceive that the ideas of secondary qualities are also produced, viz., by the operation of insensible particles on our senses. For it being manifest that there are bodies, and good store of bodies, each whereof are so small that we cannot by any of our senses discover either their bulk, figure, or motion (as is evident in the particles of the air and water, and other extremely smaller than those, perhaps as much smaller than the particles of air or water as the particles of air or water are smaller than peas or hailstones): let us suppose at present that the different motions and figures, bulk and number, of such particles, effecting the several organs of our senses, produce in us those different sensations which we have from the colours and smells of bodies, *v. g.*, that a violet, by the impulse of such insensible particles of matter of peculiar figures and bulks, and in different degrees and modifications of their motions, causes the ideas of the blue colour and sweet scent of that flower to be produced in our minds; it being no more impossible to conceive that God should annex such ideas to such motions, with which they have no similitude, than that he should annex the idea of pain to the motion of a piece of steel dividing our flesh, with which the idea hath no resemblance.

14. What I have said concerning colours and smells may be understood also of tastes and sounds, and other the like sensible qualities; which, whatever reality we by mistake attribute to them, are in

truth nothing in the objects themselves, but powers to produce various sensations in us, and depend on those primary qualities, viz., bulk, figure, texture, and motion of parts [as I have said.]

15. *Ideas of primary qualities are resemblances; of secondary, not.*—From whence I think it is easy to draw this observation, that the ideas of primary qualities of bodies are resemblances of them, and their patterns do really exist in the bodies themselves; but the ideas produced in us by these secondary qualities have no resemblance of them at all. There is nothing like our ideas existing in the bodies themselves. They are, in the bodies we denominate from them, only a power to produce those sensations in us; and what is sweet, blue, or warm in idea, is but the certain bulk, figure, and motion of the insensible parts in the bodies themselves, which we call so.

16. Flame is denominated *hot* and *light*; snow, *white* and *cold*; and manna, *white* and *sweet*, from the ideas they produce in us, which qualities are commonly thought to be the same in those bodies that those ideas are in us, the one the perfect resemblance of the other, as they are in a mirror; and it would by most men be judged very extravagant, if one should say otherwise. And yet he that will consider that the same fire that at one distance produces in us the sensation of warmth, does at a nearer approach produce in us the far different sensation of pain, ought to bethink himself what reason he has to say, that this idea of warmth which was produced in him by the fire, is actually in the fire, and his idea of pain which the same fire produced in him the same way is not in the fire. Why is whiteness and coldness in snow and pain not, when it produces the one and the other idea

in us, and can do neither but by the bulk, figure, number, and motion of its solid parts?

17. The particular bulk, number, figure, and motion of the parts of fire or snow are really in them, whether any one's senses perceive them or no; and therefore they may be called *real* qualities, because they really exist in those bodies. But light, heat, whiteness, or coldness, are no more really in them than sickness or pain is in manna. Take away the sensation of them; let not the eyes see light or colours, nor the ears hear sounds; let the palate not taste, nor the nose smell; and all colours, tastes, odours, and sounds, as they are such particular ideas, vanish and cease, and are reduced to their causes, *i. e.*, bulk, figure, and motion of parts.

18. A piece of manna of a sensible bulk is able to produce in us the idea of a round or square figure; and, by being removed from one place to another, the idea of motion. This idea of motion represents it as it really is in the manna moving; a circle or square are the same, whether in idea or existence, in the mind or in the manna; and this both motion and figure are really in the manna, whether we take notice of them or no: this every body is ready to agree to. Besides, manna, by the bulk, figure, texture, and motion of its parts, has a power to produce the sensations of sickness, and sometimes of acute pains or gripings, in us. That these ideas of sickness and pain are not in the manna, but effects of its operations on us, and are nowhere when we feel them not; this also every one readily agrees to. And yet men are hardly to be brought to think that sweetness and whiteness are not really in manna, which are but the effects of the operations of manna by the motion, size, and figure of

its particles on the eyes and palate; as the pain and sickness caused by manna, are confessedly nothing but the effects of its operations on the stomach and guts by the size, motion, and figure of its insensible parts (for by nothing else can a body operate, as has been proved): as if it could not operate on the eyes and palate, and thereby produce in the mind particular distinct ideas which in itself it has not, as well as we allow it can operate on the guts and stomach, and thereby produce distinct ideas which in itself it has not. These ideas being all effects of the operations of manna on several parts of our bodies, by the size, figure, number, and motion of its parts, why those produced by the eyes and palate should rather be thought to be really in the manna than those produced by the stomach and guts: or why the pain and sickness, ideas that are the effects of manna, should be thought to be nowhere when they are not felt: and yet the sweetness and whiteness, effects of the same manna on other parts of the body, by ways equally as unknown, should be thought to exist in the manna, when they are not seen nor tasted would need some reason to explain.

19. *Ideas of primary qualities are resemblances; of secondary, not.*—Let us consider the red and white colours in porphyry; hinder light but from striking on it, and its colours vanish; it no longer produces any such ideas in us. Upon the return of light, it produces these appearances on us again. Can any one think any real alterations are made in the porphyry by the presence or absence of light, and that those ideas of whiteness and redness are really in porphyry in the light, when it is plain it has no colour in the dark? It has indeed such a configuration of particles, both night and day, as are apt, by the rays of light

rebouncing from some parts of that hard stone, to produce in us the idea of redness, and from others the idea of whiteness. But whiteness or redness are not in it at any time, but such a texture that hath the power to produce such a sensation in us.

20. Pound an almond, and the clear white colour will be altered into a dirty one, and the sweet taste into an oily one. What real alteration can the beating of the pestle make in any body, but an alteration of the texture of it?

21. Ideas being thus distinguished and understood, we may be able to give an account how the same water, at the same time, may produce the idea of cold by one hand, and of heat by the other; whereas it is impossible that the same water, if those ideas were really in it, should at the same time be both hot and cold. For if we imagine warmth as it is in our hands, to be nothing but a certain sort and degree of motion in the minute particles of our nerves or animal spirits, we may understand how it is possible that the same water may at the same time produce the sensation of heat in one hand, and cold in the other; which yet figure never does, that never producing the idea of a square by one hand which has produced the idea of a globe by another. But if the sensation of heat and cold be nothing but the increase or diminution of the motion of the minute parts of our bodies, caused by the corpuscles of any other body, it is easy to be understood that if that motion be greater in one hand than in the other, if a body be applied to the two hands, which has in its minute particles a greater motion than in those of one of the hands, and a less than in those of the other, it will increase the motion of the one hand, and lessen it in the other, and so cause the

different sensations of heat and cold that depend thereon.

22. I have, in what just goes before, been engaged in physical inquiries a little farther than perhaps I intended. But it being necessary to make the nature of sensation a little understood, and to make the difference between the qualities in bodies, and the ideas produced by them in the mind, to be distinctly conceived, without which it were impossible to discourse intelligibly of them, I hope I shall be pardoned this little excursion into natural philosophy, it being necessary in our present inquiry to distinguish the primary and real qualities of bodies, which are always in them, (viz., solidity, extension, figure, number, and motion or rest and are sometimes perceived by us, viz., when the bodies they are in are big enough singly to be discerned,) from those secondary and imputed qualities, which are but the powers of several combinations of those primary ones, when they operate without being distinctly discerned; whereby we also may come to know what ideas are, and what are not, resemblances of something really existing in the bodies we denominate from them.

23. *Three sorts of qualities in bodies.*—The qualities then that are in bodies, rightly considered, are of three sorts:

First. The bulk, figure, number, situation, and motion or rest of their solid parts; those are in them, whether we perceive them or not; and when they are of that size that we can discover them, we have by these ideas of the thing as it is in itself, as is plain in artificial things. These I call *primary* qualities.

Secondly. The power that is in any body, by reason of its insensible primary qualities, to operate after

a peculiar manner on any of our senses, and thereby produce in us the different ideas of several colours, sounds, smells, tastes, &c. These are usually called *sensible* qualities.

Thirdly. The power that is in any body, by reason of the particular constitution of its primary qualities, to make such a change in the bulk, figure, texture, and motion of another body, as to make it operate on our senses differently from what it did before. Thus the sun has a power to make wax white, and fire, to make lead fluid. [These are usually called "powers."]

The first of these, as has been said, I think may be properly called real, original, or primary qualities, because they are in the things themselves, whether they are perceived or no; and upon their different modifications it is that the secondary qualities depend.

The other two are only powers to act differently upon other things, which powers result from the different modifications of those primary qualities.

24. *The first are resemblances; the second thought resemblances, but are not; the third neither are, nor are thought so.*—But though these two latter sorts of qualities are powers barely, and nothing but powers, relating to several other bodies, and resulting from the different modifications of the original qualities, yet they are generally otherwise thought of. For the second sort, viz., the powers to produce several ideas in us by our senses, are looked upon as real qualities in the things thus affecting us; but the third sort are called and esteemed barely powers. *V. g.*, the idea of heat or light which we receive by our eyes or touch from the sun, are commonly thought real qualities existing in the sun, and something more than mere powers in it. But when we consider the sun in ref-

erence to wax, which it melts or blanches, we look upon the whiteness and softness produced in the wax, not as qualities in the sun, but effects produced by powers in it: whereas, if rightly considered, these qualities of light and warmth, which are perceptions in me when I am warmed or enlightened by the sun, are no otherwise in the sun than the changes made in the wax, when it is blanched or melted, are in the sun. They are all of them equally powers in the sun, depending on its primary qualities, whereby it is able in the one case so to alter the bulk, figure, texture, or motion of some of the insensible parts of my eyes or hands as thereby to produce in me the idea of light or heat, and in the other it is able so to alter the bulk, figure, texture, or motion of the insensible parts of the wax as to make them fit to produce in me the distinct ideas of white and fluid.

25. The reason why the one are ordinarily taken for real qualities, and the other only for bare powers, seems to be because the ideas we have of distinct colours, sounds, &c., containing nothing at all in them of bulk, figure, or motion, we are not apt to think them the effects of these primary qualities which appear not, to our senses, to operate in their production, and with which they have not any apparent congruity, or conceivable connexion. Hence it is that we are so forward to imagine that those ideas are the resemblances of something really existing in the objects themselves, since sensation discovers nothing of bulk, figure, or motion of parts, in their production, nor can reason show how bodies by their bulk, figure, and motion, should produce in the mind the ideas of blue or yellow, &c. But, in the other case, in the operations of bodies changing the qualities one of another,

we plainly discover that the quality produced hath commonly no resemblance with any thing in the thing producing it; wherefore we look on it as a bare effect of power. For though, receiving the idea of heat or light from the sun, we are apt to think it is a perception and resemblance of such a quality in the sun, yet when we see wax, or a fair face, receive change of colour from the sun, we cannot imagine that to the perception or resemblance of any thing in the sun, because we find not those different colours in the sun itself: for, our senses being able to observe a likeness or unlikeness of sensible qualities in two different external objects, we forwardly enough conclude the production of any sensible quality in any subject to be an effect of bare power, and not the communication of any quality which was really in the efficient, when we find no such sensible quality in the thing that produced it. But our senses not being able to discover any unlikeness between the idea produced in us and the quality of the object producing it, we are apt to imagine that our ideas are resemblances of something in the objects, and not the effects of certain powers placed in the modification of their primary qualities, with which primary qualities the ideas produced in us have no resemblance.

26. *Secondary qualities twofold: first, immediately perceivable; secondly, mediately perceivable.*—To conclude: Beside those before-mentioned primary qualities in bodies, viz., bulk, figure, extension, number, and motion of their solid parts, all the rest whereby we take notice of bodies and distinguish them one from another, are nothing else but several powers in them depending on those primary qualities, whereby they are fitted, either by immediately operating on our bod-

ies, to produce several different ideas in us; or else by operating on other bodies, so to change their primary qualities as to render them capable of producing ideas in us different from what before they did. The former of these, I think, may be called secondary qualities immediately perceivable; the latter, secondary qualities mediately perceivable.

CHAPTER IX.

OF PERCEPTION.

1. *Perception the first simple idea of reflection.*— Perception, as it is the first faculty of the mind exercised about our ideas, so it is the first and simplest idea we have from reflection, and is by some called “thinking” in general. Though thinking, in the propriety of the English tongue, signifies that sort of operation of the mind about its ideas wherein the mind is active; where it, with some degree of voluntary attention, considers any thing: for in bare, naked perception, the mind is, for the most part, only passive, and what it perceives it cannot avoid perceiving.

2. *Is only when the mind receives the impression.*— What perception is, every one will know better by reflecting on what he does himself, when he sees, hears, feels, &c., or thinks, than by any discourse of mine. Whoever reflects on what passes in his own mind, cannot miss it; and if he does not reflect, all the words in the world cannot make him have any notion of it.

3. This is certain, that whatever alterations are made in the body, if they reach not the mind; whatever impressions are made on the outward parts, if they are

not taken notice of within; there is no perception. Fire may burn our bodies with no other effect than it does a billet, unless the motion be continued to the brain, and there the sense of heat or idea of pain be produced in the mind, wherein consists actual perception.

4. How often may a man observe in himself, that whilst his mind is intently employed in the contemplation of some objects, and curiously surveying some ideas that are there, it takes no notice of impressions of sounding bodies made upon the organ of hearing with the same alteration that uses to be for the producing the idea of sound! A sufficient impulse there may be on the organ; but it not reaching the observation of the mind, there follows no perception: and though the motion that uses to produce the idea of sound be made in the ear, yet no sound is heard. Want of sensation in this case is not through any defect in the organ, or that the man's ears are less affected than at other times when he does hear; but that which uses to produce the idea, though conveyed in by the usual organ, not being taken notice of in the understanding, and so imprinting no idea on the mind, there follows no sensation. So that wherever there is sense or perception, there some idea is actually produced, and present in the understanding.

5. *Children, though they may have ideas in the womb, have none innate.*—Therefore, I doubt not but children, by the exercise of their senses about objects that affect them in the womb, receive some few ideas before they are born, as the unavoidable effects either of the bodies that environ them, or else of those wants or diseases they suffer; amongst which (if one may conjecture concerning things not very capable of ex-

amination) I think the ideas of hunger and warmth are two, which probably are some of the first that children have, and which they scarce ever part with again.

6. But though it be reasonable to imagine that children receive some ideas before they come into the world, yet these simple ideas are far from those innate principles which some contend for, and we above have rejected. These here mentioned, being the effects of sensation, are only from some affections of the body which happen to them there, and so depend on something exterior to the mind; no otherwise differing in their manner of production from other ideas derived from sense, but only in the precedency of time; whereas those innate principles are supposed to be quite of another nature, not coming into the mind by any accidental alterations in or operations on the body; but, as it were, original characters impressed upon it in the very first moment of its being and constitution.

7. *Which ideas first, is not evident.*—As there are some ideas which we may reasonably suppose may be introduced into the minds of children in the womb, subservient to the necessities of their life and being there; so after they are born those ideas are the earliest imprinted which happen to be the sensible qualities which first occur to them: amongst which, light is not the least considerable, nor of the weakest efficacy. And how covetous the mind is to be furnished with all such ideas as have no pain accompanying them, may be a little guessed by what is observable in children new born, who always turn their eyes to that part from whence the light comes, lay them how you please. But the ideas that are most

familiar at first being various, according to the divers circumstances of children's first entertainment in the world, the order wherein the several ideas come at first into the mind is very various and uncertain also, neither is it much material to know it.

8. *Ideas of sensation often changed by the judgment.*— We are farther to consider concerning perception, that the ideas we receive by sensation are often in grown people altered by the judgment without our taking notice of it. When we set before our eyes a round globe of any uniform colour, *v. g.*, gold, alabaster, or jet, it is certain that the idea thereby imprinted in our mind is of a flat circle variously shadowed, with several degrees of light and brightness coming to our eyes. But we having by use been accustomed to perceive what kind of appearance convex bodies are wont to make in us, what alterations are made in the reflections of light by the difference of the sensible figures of bodies, the judgment presently, by an habitual custom, alters the appearances into their causes; so that, from that which truly is variety of shadow or colour collecting the figure, it makes it pass for a mark of figure, and frames to itself the perception of a convex figure and an uniform colour; when the idea we receive from thence is only a plane variously coloured, as is evident in painting. [To which purpose I shall here insert a problem of that very ingenious and studious promoter of real knowledge, the learned and worthy Mr. Molineaux, which he was pleased to send me in a letter some months since: and it is this: "Suppose a man born blind, and now adult, and taught by his touch to distinguish between a cube and a sphere of the same metal, and nighly of the same bigness, so as to tell, when he felt one and

the other, which is the cube, which the sphere. Suppose then the cube and sphere placed on a table, and the blind man to be made to see; quære, Whether by his sight, before he touched them, he could now distinguish and tell which is the globe, which the cube?" To which the acute and judicious proposer answers: "Not. For though he has obtained the experience of how a globe, how a cube, affects his touch; yet he has not yet obtained the experience, that what affects his touch so or so, must affect his sight so or so; or that a protuberant angle in the cube, that pressed his hand unequally, shall appear to his eye as it does in the cube." I agree with this thinking gentleman, whom I am proud to call my friend, in his answer to this his problem; and am of opinion, that the blind man, at first sight, would not be able with certainty to say which was the globe, which the cube, whilst he only saw them; though he could unerringly name them by his touch, and certainly distinguish them by the difference of their figures felt. This I have set down, and leave with my reader, as an occasion for him to consider how much he may be beholden to experience, improvement, and acquired notions, where he thinks he has not the least use of, or help from them; and the rather, because this observing gentleman farther adds, that having upon the occasion of my book proposed this to divers very ingenious men, he hardly ever met with one that at first gave the answer to it which he thinks true, till by hearing his reasons they were convinced.]

9. But this is not, I think, usual in any of our ideas but those received by sight; because sight, the most comprehensive of all our senses, conveying to our minds the ideas of light and colours, which are peculiar

only to that sense; and also the far different ideas of space, figure and motion, the several varieties whereof change the appearances of its proper objects, viz., light and colours; we bring ourselves by use to judge of the one by the other. This, in many cases, by a settled habit in things whereof we have frequent experience, is performed so constantly and so quick, that we take that for the perception of our sensation which is an idea formed by our judgment; so that one, viz., that of sensation, serves only to excite the other, and is scarce taken notice of itself; as a man who reads or hears with attention and understanding, takes little notice of the characters or sounds, but of the ideas that are excited in him by them.

10. Nor need we wonder that this is done with so little notice, if we consider how very quick the actions of the mind are performed: for as itself is thought to take up no space, to have no extension, so its actions seem to require no time, but many of them seem to be crowded into an instant. I speak this in comparison to the actions of the body. Any one may easily observe this in his own thoughts who will take the pains to reflect on them. How, as it were in an instant, do our minds with one glance see all the parts of a demonstration, which may very well be called a long one, if we consider the time it will require to put it into words, and step by step show it another! Secondly. We shall not be so much surprised that this is done in us with so little notice, if we consider how the facility which we get of doing things, by a custom of doing, makes them often pass in us without our notice. Habits, especially such as are begun very early, come at last to produce actions in us which often escape our observation. How frequently do we

in a day cover our eyes with our eye-lids, without perceiving that we are at all in the dark! Men, that by custom have got the use of a by-word, do almost in every sentence pronounce sounds which, though taken notice of by others, they themselves neither hear nor observe. And therefore it is not so strange that our mind should often change the idea of its sensation into that of its judgment, and make one serve only to excite the other, without our taking notice of it.

11. *Perception puts the difference between animals and inferior beings.*—This faculty of perception seems to me to be that which puts the distinction betwixt the animal kingdom and the inferior parts of nature. For however vegetables have, many of them, some degrees of motion, and, upon the different application of other bodies to them, do very briskly alter their figures and motions, and so have obtained the name of “sensitive plants” from a motion which has some resemblance to that which in animals follows upon sensation; yet I suppose it is all bare mechanism, and no otherwise produced than the turning of a wild oat-beard by the insinuation of the particles of moisture, or the shortening of a rope by the affusion of water. All which is done without any sensation in the subject, or the having or receiving any ideas.

12. Perception, I believe, is in some degree in all sorts of animals; though in some possibly the avenues provided by nature for the reception of sensations are so few, and the perception they are received with so obscure and dull, that it comes extremely short of the quickness and variety of sensations which is in other animals: but yet it is sufficient for and wisely adapted to the state and condition of that sort of animals who are thus made; so that the wisdom and goodness of

the Maker plainly appear in all the parts of this stupendous fabric, and all the several degrees and ranks of creatures in it.

13. We may, I think, from the make of an oyster or cockle, reasonably conclude that it has not so many nor so quick senses as a man, or several other animals; nor, if it had, would it, in that state and incapacity of transferring itself from one place to another, be bettered by them. What good would sight and hearing do to a creature that cannot move itself to or from the objects wherein at a distance it perceives good or evil? And would not quickness of sensation be an inconvenience to an animal that must lie still where chance has once placed it, and there receive the afflux of colder or warmer, clean or foul, water, as it happens to come to it?

14. But yet I cannot but think there is some small dull perception whereby they are distinguished from perfect insensibility. And that this may be so, we have plain instances even in mankind itself. Take one in whom decrepit old age has blotted out the memory of his past knowledge, and clearly wiped out the ideas his mind was formerly stored with; and has, by destroying his sight, hearing, and smell quite, and his taste to a great degree, stopped up almost all the passages for new ones to enter; or if there be some of the inlets yet half open, the impressions made are scarce perceived, or not at all retained. How far such an one (notwithstanding all that is boasted of innate principles) is in his knowledge and intellectual faculties above the condition of a cockle or an oyster, I leave to be considered. And if a man had passed sixty years in such a state, as it is possible he might as well as three days, I wonder what difference there would have

been, in any intellectual perfections, between him and the lowest degree of animals.

15. *Perception the inlet of knowledge.*— Perception, then, being the first step and degree towards knowledge, and the inlet of all the materials of it, the fewer senses any man as well as any other creature hath, and the fewer and duller the impressions are that are made by them, and the duller the faculties are that are employed about them, the more remote are they from that knowledge which is to be found in some men. But this, being in great variety of degrees (as may be perceived amongst men), cannot certainly be discovered in the several species of animals, much less in their particular individuals. It suffices me only to have remarked here, that perception is the first operation of all our intellectual faculties, and the inlet of all knowledge into our minds. And I am apt, too, to imagine that it is perception in the lowest degree of it which puts the boundaries between animals and the inferior ranks of creatures. But this I mention only as my conjecture by the by, it being indifferent to the matter in hand which way the learned shall determine of it.

CHAPTER X.

OF RETENTION.

1. *Contemplation.*— The next faculty of the mind, whereby it makes a farther progress towards knowledge, is that which I call retention or the keeping of those simple ideas which from sensation or reflection it hath received. This is done two ways. First, by keeping the idea which is brought into it for some

time actually in view, which is called contemplation.

2. *Memory*.—The other way of retention is the power to revive again in our minds those ideas which after imprinting have disappeared, or have been as it were laid aside out of sight; and thus we do, when we conceive heat or light, yellow or sweet, the object being removed. This is memory, which is, as it were, the storehouse of our ideas. For the narrow mind of man, not being capable of having many ideas under view and consideration at once, it was necessary to have a repository to lay up those ideas, which at another time it might have use of. [But our ideas being nothing but actual perceptions in the mind, which cease to be any thing when there is no perception of them, this laying up of our ideas in the repository of the memory signifies no more but this,—that the mind has a power, in many cases, to revive perceptions which it has once had, with this additional perception annexed to them,—that it has had them before. And in this sense it is that our ideas are said to be in our memories, when indeed they are actually nowhere, but only there is an ability in the mind when it will to revive them again, and, as it were, paint them anew on itself, though some with more, some with less, difficulty; some more lively, and others more obscurely.] And thus it is by the assistance of this faculty that we are said to have all those ideas in our understandings, which though we do not actually contemplate, yet we can bring in sight, and make appear again and be the objects of our thoughts, without the help of those sensible qualities which first imprinted them there.

3. *Attention, repetition, pleasure, and pain fix ideas*.—Attention and repetition help much to the

fixing any ideas in the memory; but those which naturally at first make the deepest and most lasting impression, are those which are accompanied with pleasure or pain. The great business of the senses being to make us take notice of what hurts or advantages the body, it is wisely ordered by nature (as has been shown) that pain should accompany the reception of several ideas; which, supplying the place of consideration and reasoning in children, and acting quicker than consideration in grown men, makes both the old and young avoid painful objects with that haste which is necessary for their preservation, and in both settles in the memory a caution for the future.

4. *Ideas fade in the memory.*—Concerning the several degrees of lasting wherewith ideas are imprinted on the memory, we may observe, that some of them have been produced in the understanding by an object affecting the senses once only, and no more than once: [others, that have more than once offered themselves to the senses, have yet been little taken notice of; the mind, either heedless as in children, or otherwise employed as in men, intent only on one thing, not setting the stamp deep into itself; and in some, where they are set on with care and repeated impressions, either] through the temper of the body or some other fault, the memory is very weak. In all these cases, ideas [in the mind] quickly fade, and often vanish quite out of the understanding, leaving no more footsteps or remaining characters of themselves, than shadows do flying over fields of corn: and the mind is as void of them as if they never had been there.

5. Thus many of those ideas which were produced in the minds of children in the beginning of their sensation (some of which perhaps, as of some pleasures

and pains, were before they were born, and others in their infancy), if in the future course of their lives they are not repeated again, are quite lost, without the least glimpse remaining of them. This may be observed in those who by some mischance have lost their sight when they were very young, in whom the ideas of colours, having been but slightly taken notice of, and ceasing to be repeated, do quite wear out; so that some years after there is no more notion nor memory of colours left in their minds, than in those of people born blind. The memory of some men, it is true, is very tenacious, even to a miracle; but yet there seems to be a constant decay of all our ideas, even of those which are struck deepest, and in minds the most retentive; so that if they be not sometimes renewed by repeated exercise of the senses, or reflection on those kinds of objects which at first occasioned them, the print wears out, and at last there remains nothing to be seen. Thus the ideas, as well as children, of our youth often die before us; and our minds represent to us those tombs to which we are approaching; where though the brass and marble remain, yet the inscriptions are effaced by time, and the imagery moulders away. The pictures drawn in our minds are laid in fading colours; and if not sometimes refreshed, vanish and disappear. How much the constitution of our bodies, [and the make of our animal spirits,] are concerned in this; and whether the temper of the brain makes this difference, that in some it retains the characters drawn on it like marble, in others like free-stone, and in others little better than sand, I shall not here inquire: though it may seem probable that the constitution of the body does sometimes influence the memory; since we oftentimes find a disease quite strip

the mind of all its ideas, and the flames of a fever in a few days calcine all those images to dust and confusion, which seemed to be as lasting as if graved in marble.

6. *Constantly repeated ideas can scarce be lost.*— But concerning the ideas themselves it is easy to remark, that those that are oftenest refreshed (amongst which are those that are conveyed into the mind by more ways than one) by a frequent return of the objects or actions that produce them, fix themselves best in the memory, and remain clearest and longest there: and therefore those which are of the original qualities of bodies, viz., solidity, extension, figure, motion, and rest; and those that almost constantly affect our bodies, as heat and cold; and those which are the affections of all kinds of beings, as existence, duration, and number, which almost every object that affects our senses, every thought which employs our minds, bring along with them: these, I say, and the like ideas, are seldom quite lost whilst the mind retains any ideas at all.

7. *In remembering, the mind is often active.*— In this secondary perception, as I may so call it, or viewing again the ideas that are lodged in the memory, the mind is oftentimes more than barely passive; the appearances of those dormant pictures depending sometimes on the will. The mind very often sets itself on work in search of some hidden idea, and turns, as it were, the eye of the soul upon it; though sometimes too they start up in our minds of their own accord, and offer themselves to the understanding, and very often are roused and tumbled out of their dark cells into open daylight by turbulent and tempestuous passions; our affections bringing ideas to our memory which had otherwise lain quiet and unregarded. [This

farther is to be observed concerning ideas lodged in the memory, and upon occasion revived by the mind, — that they are not only (as the word “revive” imports) none of them new ones, but also that the mind takes notice of them as of a former impression; and renews its acquaintance with them as with ideas it had known before. So that though ideas formerly imprinted are not all constantly in view, yet in remembrance they are constantly known to be such as have been formerly imprinted, *i. e.*, in view, and taken notice of before by the understanding.]

8. *Two defects in the memory, oblivion and slowness.*—Memory, in an intellectual creature, is necessary in the next degree to perception. It is of so great moment, that where it is wanting all the rest of our faculties are in a great measure useless; and we in our thoughts, reasonings, and knowledge, could not proceed beyond present objects, were it not for the assistance of our memories, wherein there may be two defects.

First, That it loses the idea quite; and so far it produces perfect ignorance. For since we can know nothing further than we have the idea of it, when that is gone we are in perfect ignorance.

Secondly, That it moves slowly, and retrieves not the ideas that it has, and are laid up in store, quick enough to serve the mind upon occasions. This, if it be to a great degree, is stupidity; and he who through this default in his memory has not the ideas that are really preserved there ready at hand when need and occasion calls for them, were almost as good be without them quite, since they serve him to little purpose. The dull man who loses the opportunity whilst he is seeking in his mind for those ideas that should serve

his turn, is not much more happy in his knowledge than one that is perfectly ignorant. It is the business therefore of the memory to furnish to the mind those dormant ideas which it has present occasion for; in the having them ready at hand on all occasions, consists that which we call invention, fancy, and quickness of parts.

9. [These are defects we may observe in the memory of one man compared with another. There is another defect which we may conceive to be in the memory of man in general, compared with some superior created intellectual beings, which in this faculty may so far excel man, that they may have constantly in view the whole scene of all their former actions, wherein no one of the thoughts they have ever had may slip out of their sight. The omniscience of God, who knows all things, past, present, and to come, and to whom the thoughts of men's hearts always lie open, may satisfy us of the possibility of this. For who can doubt but God may communicate to those glorious spirits, his immediate attendants, any of his perfections in what proportion he pleases, as far as created finite beings can be capable? It is reported of that prodigy of parts, Monsieur Pascal, that, till the decay of his health had impaired his memory, he forgot nothing of what he had done, read, or thought in any part of his rational age. This is a privilege so little known to most men, that it seems almost incredible to those who, after the ordinary way, measure all others by themselves; but yet, when considered, may help us to enlarge our thoughts towards greater perfections of it in superior ranks of spirits. For this of M. Pascal was still with the narrowness that human minds are confined to here — of having great variety of ideas

only by succession, not all at once : whereas the several degrees of angels may probably have larger views, and some of them be endowed with capacities able to retain together and constantly set before them, as in one picture, all their past knowledge at once. This, we may conceive, would be no small advantage to the knowledge of a thinking man, if all his past thoughts and reasonings could be always present to him ; and therefore we may suppose it one of those ways wherein the knowledge of separate spirits may exceedingly surpass ours.]

10. *Brutes have memory.*— This faculty of laying up and retaining the ideas that are brought into the mind, several other animals seem to have to a great degree, as well as man. For, to pass by other instances, birds' learning of tunes, and the endeavours one may observe in them to hit the notes right, put it past doubt with me that they have perception, and retain ideas in their memories, and use them for patterns. For it seems to me impossible that they should endeavour to conform their voices to notes (as it is plain they do) of which they had no ideas. For though I should grant sound may mechanically cause a certain motion of the animal spirits in the brains of those birds whilst the tune is actually playing, and that motion may be continued on to the muscles of the wings, and so the bird mechanically be driven away by certain noises, because this may tend to the bird's preservation ; yet that can never be supposed a reason why it should cause mechanically either whilst the tune was playing, much less after it has ceased, such a motion of the organs in the bird's voice as should conform it to the notes of a foreign sound, which imitation can be of no use to the bird's preservation. But,

which is more, it cannot with any appearance of reason be supposed (much less proved) that birds without sense and memory can approach their notes, nearer and nearer by degrees, to a tune played yesterday; which if they have no idea of it in their memory is now nowhere, nor can be a pattern for them to imitate, or which any repeated essays can bring them nearer to; since there is no reason why the sound of a pipe should leave traces in their brains, which not at first, but by their after endeavours, should produce the like sounds; and why the sounds they make themselves should not make traces which they should follow, as well as those of the pipe, is impossible to conceive.

CHAPTER XI.

OF DISCERNING, AND OTHER OPERATIONS OF THE MIND.

1. *No knowledge without discerning.*—Another faculty we may take notice of in our minds, is that of discerning and distinguishing between the several ideas it has. It is not enough to have a confused perception of something in general: unless the mind had a distinct perception of different objects and their qualities, it would be capable of very little knowledge; though the bodies that affect us were as busy about us as they are now, and the mind were continually employed in thinking. On this faculty of distinguishing one thing from another, depends the evidence and certainty of several even very general propositions, which have passed for innate truths; because men, overlooking the true cause why those propositions find universal assent, impute it wholly to

native uniform impressions: whereas it in truth depends upon this clear discerning faculty of the mind, whereby it perceives two ideas to be the same or different. But of this more hereafter.

2. *The difference of wit and judgment.*—How much the imperfection of accurately discriminating ideas one from another lies either in the dulness or faults of the organs of sense, or want of acuteness, exercise, or attention in the understanding, or hastiness and precipitancy natural to some tempers, I will not here examine: it suffices to take notice, that this is one of the operations that the mind may reflect on and observe in itself. It is of that consequence to its other knowledge, that so far as this faculty is in itself dull, or not rightly made use of for the distinguishing one thing from another, so far our notions are confused, and our reason, and judgment disturbed or misled. If in having our ideas in the memory ready at hand consists quickness of parts; in this of having them unconfused, and being able nicely to distinguish one thing from another where there is but the least difference, consists in a great measure the exactness of judgment and clearness of reason which is to be observed in one man above another. And hence, perhaps, may be given some reason of that common observation—that men who have a great deal of wit and prompt memories, have not always the clearest judgment or deepest reason. For, wit lying most in the assemblage of ideas, and putting those together with quickness and variety wherein can be found any resemblance or congruity, thereby to make up pleasant pictures and agreeable visions in the fancy; judgment, on the contrary, lies quite on the other side, in separating carefully one from another ideas wherein

can be found the least difference, thereby to avoid being misled by similitude and by affinity to take one thing for another. This is a way of proceeding quite contrary to metaphor and allusion, wherein for the most part lies that entertainment and pleasantry of wit which strikes so lively on the fancy, and therefore so acceptable to all people; because its beauty appears at first sight, and there is required no labour of thought to examine what truth or reason there is in it. The mind, without looking any farther, rests satisfied with the agreeableness of the picture and the gaiety of the fancy; and it is a kind of affront to go about to examine it by the severe rules of truth and good reason; whereby it appears that it consists in something that is not perfectly conformable to them.

3. *Clearness alone hinders confusion.*—To the well distinguishing our ideas, it chiefly contributes that they be clear and determinate; and when they are so, it will not breed any confusion or mistake about them, though the senses should (as sometimes they do) convey them from the same object differently on different occasions, and so seem to err. For though a man in a fever should from sugar have a bitter taste, which at another time would produce a sweet one, yet the idea of bitter in that man's mind would be as clear and distinct from the idea of sweet, as if he had tasted only gall. Nor does it make any more confusion between the two ideas of sweet and bitter, that the same sort of body produces at one time one and at another time another idea by the taste, than it makes a confusion in two ideas of white and sweet, or white and round, that the same piece of sugar produces them both in the mind at the same time. And the ideas of orange-colour and azure that are produced in the mind

by the same parcel of the infusion of *lignum nephriticum*, are no less distinct ideas than those of the same colours taken from two very different bodies.

4. *Comparing*.—The comparing them one with another, in respect of extent, degrees, time, place, or any other circumstances, is another operation of the mind about its ideas, and is that upon which depends all that large tribe of ideas comprehended under relation; which of how vast an extent it is, I shall have occasion to consider hereafter.

5. *Brutes compare, but imperfectly*.—How far brutes partake in this faculty is not easy to determine; I imagine they have it not in any great degree: for though they probably have several ideas distinct enough, yet it seems to me to be the prerogative of human understanding, when it has sufficiently distinguished any ideas so as to perceive them to be perfectly different, and so consequently two, to cast about and consider in what circumstances they are capable to be compared. And therefore, I think, beasts compare not their ideas farther than some sensible circumstances annexed to the objects themselves. The other power of comparing which may be observed in men, belonging to general ideas, and useful only to abstract reasonings, we may probably conjecture beasts have not.

6. *Compounding*.—The next operation we may observe in the mind about its ideas is composition; whereby it puts together several of those simple ones it has received from sensation and reflection, and combines them into complex ones. Under this of composition may be reckoned also that of enlarging; wherein though the composition does not so much appear as in more complex ones, yet it is nevertheless a putting

several ideas together, though of the same kind. Thus, by adding several units together we make the idea of a dozen, and putting together the repeated ideas of several perches we frame that of a furlong.

7. *Brutes compound but little.*—In this also I suppose brutes come far short of men. For though they take in and retain together several combinations of simple ideas (as possibly the shape, smell, and voice of his master, make up the complex idea a dog has of him, or rather, are so many distinct marks whereby he knows him); yet I do not think they do of themselves ever compound them and make complex ideas. And perhaps even where we think they have complex ideas, it is only one simple one that directs them in the knowledge of several things, which possibly they distinguish less by their sight than we imagine. For I have been credibly informed that a bitch will nurse, play with, and be fond of young foxes, as much as and in place of her puppies, if you can but get them once to suck her so long that her milk may go through them. [And those animals which have a numerous brood of young ones at once, appear not to have any knowledge of their number; for though they are mightily concerned for any of their young that are taken from them whilst they are in sight or hearing, yet if one or two of them be stolen from them in their absence or without noise, they appear not to miss them, or to have any sense that their number is lessened.]

8. *Naming.*—When children have by repeated sensations got ideas fixed in their memories, they begin by degrees to learn the use of signs. And when they have got the skill to apply the organs of speech to the framing of articulate sounds, they begin to make

use of words to signify their ideas to others. These verbal signs they sometimes borrow from others, and sometimes make themselves, as one may observe among the new and unusual names children often give to things in their first use of language.

9. *Abstraction*.—The use of words then being to stand as outward marks of our internal ideas, and those ideas being taken from particular things, if every particular idea that we take in should have a distinct name, names must be endless. To prevent this, the mind makes the particular ideas, received from particular objects, to become general; which is done by considering them as they are in the mind such appearances separate from all other existences, and the circumstances of real existence, as time, place, or any other concomitant ideas. This is called “abstraction,” whereby ideas taken from particular beings become general representatives of all of the same kind; and their names, general names, applicable to whatever exists conformable to such abstract ideas. Such precise, naked appearances in the mind, without considering how, whence, or with what others they came there, the understanding lays up (with names commonly annexed to them) as the standards to rank real existences into sorts, as they agree with these patterns, and to denominate them accordingly. Thus, the same colour being observed to-day in chalk or snow, which the mind yesterday received from milk, it considers that appearance alone, makes it a representative of all of that kind, and, having given it the name “whiteness,” it by that sound signifies the same quality wheresoever to be imagined or met with; and thus universals, whether ideas or terms, are made.

10. *Brutes abstract not*.—If it may be doubted

whether beasts compound and enlarge their ideas that way to any degree, this, I think, I may be positive in, that the power of abstracting is not at all in them, and that the having of general ideas is that which puts a perfect distinction between man and brutes, and is an excellency which the faculties of brutes do by no means attain to. For it is evident we observe no foot-steps in them of making use of general signs for universal ideas; from which we have reason to imagine, that they have not the faculty of abstracting or making general ideas, since they have no use of words or any other general signs.

II. Nor can it be imputed to their want of fit organs to frame articulate sounds, that they have no use or knowledge of general words: since many of them, we find, can fashion such sounds and pronounce words distinctly enough, but never with any such application. And, on the other side, men who, through some defect in the organs, want words, yet fail not to express their universal ideas by signs, which serve them instead of general words; a faculty which we see beasts come short in. And therefore, I think, we may suppose that it is in this that the species of brutes are discriminated from man; and it is that proper difference wherein they are wholly separated, and which at last widens to so vast a distance. For if they have any ideas at all, and are not bare machines (as some would have them), we cannot deny them to have some reason. It seems as evident to me that they do, some of them, in certain instances, reason, as that they have sense; but it is only in particular ideas, just as they received them from their senses. They are, the best of them, tied up within those narrow bounds, and have

not (as I think) the faculty to enlarge them by any kind of abstraction.

12. *Idiots and madmen.*—How far idiots are concerned in the want or weakness of any or all of the foregoing faculties, an exact observation of their several ways of faltering would no doubt discover. For those who either perceive but dully, or retain the ideas that come into their minds but ill, who cannot readily excite or compound them, will have little matter to think on. Those who cannot distinguish, compare, and abstract, would hardly be able to understand and make use of language, or judge, or reason, to any tolerable degree; but only a little and imperfectly about things present and very familiar to their senses. And indeed any of the fore-mentioned faculties, if wanting or out of order, produce suitable defects in men's understandings and knowledge.

13. In fine, the defect in naturals seems to proceed from want of quickness, activity, and motion in the intellectual faculties, whereby they are deprived of reason; whereas madmen, on the other side, seem to suffer by the other extreme. For they do not appear to me to have lost the faculty of reasoning; but, having joined together some ideas very wrongly, they mistake them for truths, and they err as men do that argue right from wrong principles. For by the violence of their imaginations having taken their fancies for realities, they make right deductions from them. Thus you shall find a distracted man, fancying himself a king, with a right inference, require suitable attendance, respect, and obedience; others, who have thought themselves made of glass, have used the caution necessary to preserve such brittle bodies. Hence it comes to pass, that a man who is very sober and of a right

understanding in all other things, may in one particular be as frantic as any in Bedlam; if either by any sudden very strong impression, or long fixing his fancy upon one sort of thoughts, incoherent ideas have been cemented together so powerfully as to remain united. But there are degrees of madness, as of folly; the disorderly jumbling ideas together is in some more and some less. In short, herein seems to lie the difference between idiots and madmen, that madmen put wrong ideas together, and so make wrong propositions, but argue and reason right from them; but idiots make very few or no propositions, and reason scarce at all.

14. *Method.*—These, I think, are the first faculties and operations of the mind which it makes use of in understanding; and though they are exercised about all its ideas in general, yet the instances I have hitherto given have been chiefly in simple ideas; and I have subjoined the explication of these faculties of the mind to that of simple ideas, before I come to what I have to say concerning complex ones, for these following reasons:—

First, Because, several of these faculties being exercised at first principally about simple ideas, we might, by following nature in its ordinary method, trace and discover them in their rise, progress, and gradual improvements.

Secondly, Because, observing the faculties of the mind, how they operate about simple ideas, which are usually in most men's minds much more clear, precise, and distinct than complex ones, we may the better examine and learn how the mind extracts, denominates, compares, and exercises in its other operations about

those which are complex, wherein we are much more liable to mistake.

Thirdly, Because these very operations of the mind about ideas received from sensations are themselves, when reflected on, another set of ideas, derived from that other source of our knowledge which I call "reflection;" and therefore fit to be considered in this place after the simple ideas of sensation. Of compounding, comparing, abstracting, &c., I have but just spoken, having occasion to treat of them more at large in other places.

15. *These are the beginnings of human knowledge.*—And thus I have given a short and, I think, true history of the first beginnings of human knowledge, whence the mind has its first objects, and by what steps it makes its progress to the laying in and storing up those ideas out of which is to be framed all the knowledge it is capable of; wherein I must appeal to experience and observation whether I am in the right: the best way to come to truth being to examine things as really they are, and not to conclude they are as we fancy of ourselves, or have been taught by others to imagine.

16. *Appeal to experience.*—To deal truly, this is the only way that I can discover whereby the ideas of things are brought into the understanding: if other men have either innate ideas or infused principles, they have reason to enjoy them; and if they are sure of it, it is impossible for others to deny them the privilege that they have above their neighbours. I can speak but of what I find in myself, and is agreeable to those notions which, if we will examine the whole course of men in their several ages, countries, and educations, seem to depend on those foundations which

I have laid, and to correspond with this method in all the parts and degrees thereof.

17. *Dark room.*—I pretend not to teach, but to inquire; and therefore cannot but confess here again, that external and internal sensation are the only passages that I can find of knowledge to the understanding. These alone, as far as I can discover, are the windows by which light is let into this dark room. For methinks the understanding is not much unlike a closet wholly shut from light, with only some little openings left to let in external visible resemblances or ideas of things without: [would the pictures coming into such a dark room but stay there,] and lie so orderly as to be found upon occasion, it would very much resemble the understanding of a man in reference to all objects of sight, and the ideas of them.

These are my guesses concerning the means whereby the understanding comes to have and retain simple ideas and the modes of them, with some other operations about them. I proceed now to examine some of these simple ideas and their modes a little more particularly.

CHAPTER XII.

OF COMPLEX IDEAS.

1. *Made by the mind out of simple ones.*—We have hitherto considered those ideas, in the reception whereof the mind is only passive, which are those simple ones received from sensation and reflection before mentioned, whereof the mind cannot make one to itself, nor have any idea which does not wholly consist of them. [But as the mind is wholly passive

in the reception of all its simple ideas, so it exerts several acts of its own, whereby out of its simple ideas, as the materials and foundations of the rest, the other are framed. The acts of the mind wherein it exerts in power over its simple ideas are chiefly these three: (1.) Combining several simple ideas into one compound one; and thus all complex ideas are made. (2.) The second is bringing two ideas, whether simple or complex, together, and setting them by one another, so as to take a view of them at once, without uniting them into one; by which way it gets all its ideas of relations. (3.) The third is separating them from all other ideas that accompany them in their real existence; this is called "abstraction:" and thus all its general ideas are made. This shows man's power and its way of operation to be much the same in the material and intellectual world. For, the materials in both being such as he has no power over, either to make or destroy, all that man can do is either to unite them together, or to set them by one another, or wholly separate them. I shall here begin with the first of these in the consideration of complex ideas, and come to the other two in their due places.] As simple ideas are observed to exist in several combinations united together, so the mind has a power to consider several of them united together as one idea; and that not only as they are united in external objects, but as itself has joined them. Ideas thus made up of several simple ones put together I call "complex;" such as are beauty, gratitude, a man, an army, the universe; which, though complicated of various simple ideas or complex ideas made up of simple ones, yet are, when the mind pleases, considered each by itself as one entire thing, and signified by one name.

2. *Made voluntarily.*—In this faculty of repeating and joining together its ideas, the mind has great power in varying and multiplying the objects of its thoughts infinitely beyond what sensation or reflection furnished it with; but all this still confined to those simple ideas which it received from those two sources, and which are the ultimate materials of all its compositions. For, simple ideas are all from things themselves; and of these the mind can have no more nor other than what are suggested to it. It can have no other ideas of sensible qualities than what come from without by the senses, nor any ideas of other kind of operations of a thinking substance than what it finds in itself: but when it has once got these simple ideas, it is not confined barely to observation, and what offers itself from without; it can, by its own power, put together those ideas it has, and make new complex ones which it never received so united.

3. *Are either modes, substances, or relations.*—Complex ideas, however compounded and decomposed, though their number be infinite, and the variety endless wherewith they fill and entertain the thoughts of men, yet I think they may be all reduced under these three heads: 1. Modes. 2. Substances. 3. Relations.

4. *Modes.*—First. “Modes” I call such complex ideas which, however compounded, contain not in them the supposition of subsisting by themselves, but are considered as dependences on, or affections of, substances; such are the ideas signified by the words, “triangle, gratitude, murder,” &c. And if in this I use the word “mode” in somewhat a different sense from its ordinary signification, I beg pardon; it being unavoidable in discourses differing from the ordinary

received notions, either to make new words or to use old words in somewhat a new signification: the latter whereof, in our present case, is perhaps the more tolerable of the two.

5. *Simple and mixed modes.*—Of these modes there are two sorts which deserve distinct consideration. First. There are some which are only variations or different combinations of the same simple idea, without the mixture of any other, as a dozen, or score; which are nothing but the ideas of so many distinct units added together: and these I call “simple modes,” as being contained within the bounds of one simple idea. Secondly. There are others compounded of simple ideas, of several kinds, put together to make one complex one; *v. g.*, beauty, consisting of a certain composition of colour and figure, causing delight in the beholder; theft, which, being the concealed change of the possession of any thing, without the consent of the proprietor, contains, as is visible, a combination of several ideas of several kinds; and these “I call mixed modes.”

6. *Substances single or collective.*—Secondly. The ideas of substances are such combinations of simple ideas as are taken to represent distinct particular things subsisting by themselves, in which the supposed or confused idea of substance, such as it is, is always the first and chief. Thus, if to substance be joined the simple idea of a certain dull, whitish colour, with certain degrees of weight, hardness, ductility, and fusibility, we have the idea of lead; and a combination of the ideas of a certain sort of figure, with the powers of motion, thought, and reasoning, joined to substance, make the ordinary idea of a man. Now of substances also there are two sorts of ideas, one of

single substances, as they exist separately, as of a man or a sheep; the other of several of those put together, as an army of men or flock of sheep; which collective ideas of several substances thus put together, are as much each of them one single idea as that of a man or an unit.

7. *Relation.*—Thirdly. The last sort of complex ideas is that we call “Relation,” which consists in the consideration and comparing one idea with another. Of these several kinds we shall treat in their order.

8. *The abstrusest ideas from the two sources.*—If we trace the progress of our minds, and with attention observe how it repeats, adds together, and unites its simple ideas received from sensation or reflection, it will lead us farther than at first perhaps we should have imagined. And I believe we shall find, if we warily observe the originals of our notions, that even the most abstruse ideas, how remote soever they may seem from sense, or from any operation of our own minds, are yet only such as the understanding frames to itself, by repeating and joining together ideas that it had either from objects of sense, or from its own operations about them; so that those even large and abstract ideas are derived from sensation or reflection, being no other than what the mind, by the ordinary use of its own faculties, employed about ideas received from objects of sense, or from the operations it observes in itself about them, may and does attain unto. This I shall endeavour to show in the ideas we have of space, time, and infinity, and some few other that seem the most remote from those originals.

CHAPTER XIII.

OF SIMPLE MODES; AND FIRST, OF THE SIMPLE MODES
OF SPACE.

I. *Simple modes.*—Though in the foregoing part I have often mentioned simple ideas, which are truly the materials of all our knowledge: yet, having treated of them there rather in the way that they come into the mind than as distinguished from others more compounded, it will not be perhaps amiss to take a view of some of them again under this consideration, and examine those different modifications of the same idea, which the mind either finds in things existing, or is able to make within itself, without the help of any extrinsical object, or any foreign suggestion.

Those modifications of any one simple idea (which as has been said, I call “simple modes”), are as perfectly different and distinct ideas in the mind as those of the greatest distance or contrariety; for the idea of two is as distinct from that of one as blueness from heat, or either of them from any number; and yet it is made up only of that simple of idea of an unit repeated; and repetitions of this kind joined together make those distinct simple modes of a dozen, a gross, a million.

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CHAPTER XVII.

OF INFINITY.

I. *Infinity, in its original intention, attributed to space, duration, and number.*—He that would know

what kind of idea it is to which we give the name of "infinity," cannot do it better than by considering to what infinity is by the mind more immediately attributed, and then how the mind comes to frame it.

Finite and infinite seem to me to be looked upon by the mind as the modes of quantity, and to be attributed primarily in their first designation only to those things which have parts, and are capable of increase or diminution by the addition or subtraction of any the least part; and such are the ideas of space, duration, and number, which we have considered in the foregoing chapters. It is true that we cannot but be assured that the great God, of whom and from whom are all things, is incomprehensibly infinite: but yet when we apply to that first and supreme Being our idea of infinite, in our weak and narrow thoughts, we do it primarily in respect of his duration and ubiquity; and, I think, more figuratively to his power, wisdom, and goodness, and other attributes, which are properly inexhaustible and incomprehensible, &c. For when we call them infinite, we have no other idea of this infinity but what carries with it some reflection on and imitation of that number or extent of the acts or objects of God's power, wisdom, and goodness, which can never be supposed so great or so many, which these attributes will not always surmount and exceed, let us multiply them in our thoughts as far as we can, with all the infinity of endless number. I do not pretend to say how these attributes are in God, who is infinitely beyond the reach of our narrow capacities; they do, without doubt, contain in them all possible perfection: but this, I say, is our way of conceiving them, and these our ideas of their infinity.

2. *The idea of finite easily got.*—Finite then and

infinite being by the mind looked on as modifications of expansion and duration, the next thing to be considered is, how the mind comes by them. As for the idea of finite, there is no great difficulty. The obvious portions of extension that affect our senses carry with them into the mind the idea of finite; and the ordinary periods of succession whereby we measure time and duration, as hours, days and years, are bounded lengths. The difficulty is, how we come by those boundless ideas of eternity and immensity, since the objects which we converse with come so much short of any approach or proportion to that largeness.

3. *How we come by the idea of infinity.*—Every one that has any idea of any stated lengths of space, as a foot, finds that he can repeat that idea; and, joining it to the former, make the idea of two feet, and, by the addition of a third, three feet, and so on, without ever coming to an end of his additions, whether of the same idea of a foot, or, if he pleases, of doubling it, or any other idea he has of any length, as a mile, or diameter of the earth, or of the *orbis magnus*; for, whichever of these he takes, and how often soever he doubles or any otherwise multiplies it, he finds that, after he has continued his doubling in his thoughts and enlarged his idea as much as he pleases, he has no more reason to stop, nor is one jot nearer the end of such addition than he was at first setting out: the power of enlarging his idea of space by farther additions remaining still the same, he hence takes the idea of infinite space.

4. *Our idea of space boundless.*—This, I think, is the way whereby the mind gets the idea of infinite space. It is a quite different consideration to examine whether the mind has the idea of such a boundless space actually

existing, since our ideas are not always proofs of the existence of things; but yet, since this comes here in our way, I suppose I may say that we are apt to think that space in itself is actually boundless, to which imagination the idea of space or expansion of itself naturally leads us. For, it being considered by us either as the extension of body, or as existing by itself, without any solid matter taking it up (for of such a void space we have not only the idea, but I have proved, as I think, from the motion of body, its necessary existence), it is impossible the mind should be ever able to find or suppose any end of it, or be stopped any where in its progress in this space, how far soever it extends its thoughts. Any bounds made with body, even adamantine walls, are so far from putting a stop to the mind in its farther progress in space and extension, that it rather facilitates and enlarges it: for so far as that body reaches, so far no one can doubt of extension; and when we are come to the utmost extremity of body, what is there that can there put a stop, and satisfy the mind that it is at the end of space, when it perceives it is not; nay, when it is satisfied that body itself can move into it? For if it be necessary for the motion of body that there should be an empty space, though never so little, here amongst bodies; and it be possible for body to move in or through that empty space (nay, it is impossible for any particle of matter to move but into an empty space); the same possibility of a body's moving into a void space beyond the utmost bounds of body, as well as into a void space interspersed amongst bodies, will always remain clear and evident; the idea of empty pure space, whether within or beyond the confines of all bodies, being exactly the same, differing

not in nature, though in bulk; and there being nothing to hinder body from moving into it: so that wherever the mind places itself by any thought, either amongst or remote from all bodies, it can, in this uniform idea of space, nowhere find any bounds, any end; and so must necessarily conclude it, by the very nature and idea of each part of it, to be actually infinite.

5. *And so of duration.*—As, by the power we find in ourselves of repeating as often as we will any idea of space, we get the idea of immensity; so, by being able to repeat the idea of any length of duration we have in our minds, with all the endless addition of number, we come by the idea of eternity. For we find in ourselves, we can no more come to an end of such repeated ideas than we can come to the end of number; which every one perceives he cannot. But here again it is another question, quite different from our having an idea of eternity, to know whether there were any real being whose duration has been eternal. And as to this, I say, he that considers something now existing must necessarily come to something eternal. But having spoke of this in another place, I shall say here no more of it, but proceed on to some other considerations of our idea of infinity.

6. *Why other ideas are not capable of infinity.*—If it be so, that our idea of infinity be got from the power we observe in ourselves of repeating without end our own ideas, it may be demanded, why we do not attribute infinity to other ideas, as well as those of space and duration; since they may be as easily and as often repeated in our minds as the other; and yet nobody ever thinks of infinite sweetness or infinite whiteness, though he can repeat the idea of sweet or white as frequently as those of a yard or a day? To which I

answer, All the ideas that are considered as having parts, and are capable of increase by the addition of any equal or less parts, afford us, by their repetition, the idea of infinity; because with this endless repetition there is continued an enlargement, of which there can be no end. But in other ideas it is not so; for to the largest idea of extension or duration that I at present have, the addition of any the least part makes an increase; but to the perfectest idea I have of the whitest whiteness, if I add another of a less or equal whiteness (and of a whiter than I have, I cannot add the idea), it makes no increase, and enlarges not my idea at all; and therefore the different ideas of whiteness, &c., are called “degrees.” For those ideas that consist of parts are capable of being augmented by every addition of the least part; but if you take the idea of white which one parcel of snow yielded yesterday to our sight, and another idea of white from another parcel of snow you see to-day, and put them together in your mind, they embody, as it were, and run into one, and the idea of whiteness is not at all increased; and if we add a less degree of whiteness to a greater, we are so far from increasing that we diminish it. Those ideas that consist not of parts cannot be augmented to what proportion men please, or be stretched beyond what they have received by their senses; but space, duration, and number, being capable of increase by repetition, leave in the mind an idea of an endless room for more; nor can we conceive any where a stop to a farther addition or progression: and so those ideas alone lead our minds towards the thought of infinity.

7. *Difference between infinity of space and space infinite.*—Though our idea of infinity arise from the

contemplation of quantity, and the endless increase the mind is able to make in quantity, by the repeated additions of what portions thereof it pleases; yet, I guess, we cause great confusion in our thoughts when we join infinity to any supposed idea of quantity the mind can be thought to have, and so discourse or reason about an infinite quantity, as an infinite space or an infinite duration. For our idea of infinity being, as I think, an endless growing idea, but the idea of any quantity the mind has being at that time terminated in that idea (for be it as great as it will, it can be no greater than it is, to join infinity to it, is to adjust a standing measure to a growing bulk; and therefore I think it is not an insignificant subtilty if I say that we are carefully to distinguish between the idea of *the infinity of space* and the idea of *a space infinite*: the first is nothing but a supposed endless progression of the mind over what repeated ideas of space it pleases; but to have actually in the mind the idea of a space infinite, is to suppose the mind already passed over, and actually to have a view of all those repeated ideas of space which an endless repetition can never totally represent to it; which carries in it a plain contradiction.

8. *We have no idea of infinite space.*—This, perhaps, will be a little plainer if we consider it in numbers. The infinity of numbers, to the end of whose addition every one perceives there is no approach, easily appears to any one that reflects on it: but how clear soever this idea of the infinity of number be, there is nothing yet more evident than the absurdity of the actual idea of an infinite number. Whatsoever positive ideas we have in our minds of any space, duration, or number, let them be ever so great, they

are still finite; but when we suppose an inexhaustible remainder, from which we remove all bounds, and wherein we allow the mind an endless progression of thought, without ever completing the idea, there we have our idea of infinity; which though it seems to be pretty clear when we consider nothing else in it but the negation of an end, yet when we would frame in our minds the idea of an infinite space or duration, that idea is very obscure and confused, because it is made up of two parts very different, if not inconsistent. For let a man frame in his mind an idea of any space or number, as great as he will, it is plain the mind rests and terminates in that idea; which is contrary to the idea of infinity, which consists in a supposed endless progression. And therefore I think it is that we are so easily confounded when we come to argue and reason about infinite space or duration, &c. Because the parts of such an idea not being perceived to be, as they are, inconsistent, the one side or other always perplexes whatever consequences we draw from the other; as an idea of *motion not passing on* would perplex any one who should argue from such an idea, which is not better than an idea of *motion at rest*; and such another seems to me to be the idea of a space or (which is the same thing) a number infinite *i. e.*, of a space or number which the mind actually has, and so views and terminates in, and of a space or number which, in a constant and endless enlarging and progression, it can in thought never attain to. For how large soever an idea of space I have in my mind, it is no larger than it is that instant that I have it, though I be capable the next instant to double it, and so on *in infinitum*: for that alone is infinite

which has no bounds, and that the idea of infinity in which our thoughts can find none.

9. *Number affords us the clearest idea of infinity.*—But of all other ideas, it is number, as I have said, which, I think, furnishes us with the clearest and most distinct idea of infinity we are capable of. For even in space and duration, when the mind pursues the idea of infinity, it there makes use of the ideas and repetitions of numbers, as of millions of millions of miles or years, which are so many distinct ideas kept best by number from running into a confused heap, wherein the mind loses itself; and when it has added together as many millions &c., as it pleases of known lengths of space or duration the clearest idea it can get of infinity is, the confused, incomprehensible remainder of endless addible numbers, which affords no prospect of stop or boundary.

10. *Our different conception of the infinity of number, duration, and expansion.*—It will, perhaps, give us a little farther light into the idea we have of infinity, and discover to us that it is nothing but the infinity of number applied to determinate parts, of which we have in our minds the distinct ideas, if we consider that number is not generally thought by us infinite, whereas duration and extension are apt to be so; which arises from hence, that in number we are at one end as it were: for there being in number nothing less than an unit, we there stop, and are at an end; but in addition or increase of number, we can set no bounds: and so it is like a line, whereof one end terminating with us, the other is extended still forwards beyond all that we can conceive; but in space and duration it is otherwise.. For in duration we consider it as if this line of number were extended both ways to

an unconceivable, undeterminate, and infinite length; which is evident to any one that will but reflect on what consideration he hath of eternity; which, I suppose, he will find to be nothing else but the turning this infinity of number both ways, *à parte ante* and *à parte post*, as they speak. For when we would consider eternity *à parte ante*, what do we but, beginning from ourselves and the present time we are in, repeat in our minds the ideas of years, or ages, or any other assignable portion of duration past, with a prospect of proceeding in such addition with all the infinity of number? and when we would consider eternity *à parte post*, we just after the same rate begin from ourselves, and reckon by multiplied periods yet to come, still extending that line of number as before: and these two being put together are that infinite duration we call “eternity;” which, as we turn our view either way, forwards or backwards, appears infinite, because we still turn that way the infinite end of number, *i. e.*, the power still of adding more.

11. The same happens also in space, wherein conceiving ourselves to be as it were in the centre, we do on all sides pursue those indeterminable lines of number; and reckoning any way from ourselves a yard, mile, diameter of the earth, or *orbis magnus*, by the infinity of number, we add others to them as often as we will; and having no more reason to set bounds to those repeated ideas than we have to set bounds to number, we have that indeterminable idea of immensity.

12. *Infinite divisibility*.—And since in any bulk of matter our thoughts can never arrive at the utmost divisibility, therefore there is an apparent infinity to us also in that which has the infinity also of number,

but with this difference,—that in the former considerations of the infinity of space and duration, we only use addition of numbers; whereas this is like the division of a unit into its fractions, wherein the mind also can proceed *in infinitum*, as well as in the former additions, it being indeed but the addition still of new numbers; though in the addition of the one we can have no more the (positive) idea of a space infinitely great, than in the division of the other we can have the idea of a body infinitely little; our idea of infinity being, as I may so say, a growing and fugitive idea, still in a boundless progression, that can stop nowhere.

13. *No positive idea of infinite.*—Though it be hard, I think, to find any one so absurd as to say he has the positive idea of an actual infinite number, the infinity whereof lies only in a power still of adding any combination of units to any former number, and that as long and as much as one will; the like also being in the infinity of space and duration, which power leaves always to the mind room for endless additions; yet there be those who imagine they have positive ideas of infinite duration and space. It would, I think, be enough to destroy any such positive idea of infinite to ask him that has it, whether he could add to it or no? which would easily show the mistake of such a positive idea. We can, I think, have no positive idea of any space or duration which is not made up of, and commensurate to, repeated numbers of feet or yards, or days and years; which are the common measures whereof we have the ideas of our minds, and whereby we judge of the greatness of this sort of quantities. And therefore, since an infinite idea of space or duration must needs be made up of infinite parts, it can have no other infinity than that of number, capable

still of farther addition ; but not an actual positive idea of a number infinite. For, I think, it is evident that the addition of finite things together (as are all lengths whereof we have the positive ideas) can never otherwise produce the idea of infinite than as number does ; which, consisting of additions of finite units one to another, suggests the idea of infinite only by a power we find we have of still increasing the sum, and adding more of the same kind, without coming one jot nearer the end of such progression.

14. They who would prove their idea of infinite to be positive, seem to me to do it by a pleasant argument, taken from the negation of an end ; which being negative, the negation of it is positive. He that considers that the end is, in body, but the extremity or superficies of that body, will not, perhaps, be forward to grant, that the end is a bare negative : and he that perceives the end of his pen is black or white, will be apt to think that the end is something more than a pure negation. Nor is it, when applied to duration, the bare negation of existence, but more properly the last moment of it. But if they will have the end to be nothing but the bare negation of existence, I am sure they cannot deny but that the beginning is the first instant of being, and is not by any body conceived to be a bare negation ; and therefore, by their own argument, the idea of eternal *à parte ante*, or of a duration without a beginning, is but a negative idea.

15. *What is positive, what negative, in our idea of infinite.*—The idea of infinite has, I confess, something of positive in all those things we apply it to. When we would think of infinite space or duration, we at first step usually make some very large idea, as perhaps, of millions of ages or miles, which possibly we

double and multiply several times. All that we thus amass together in our thoughts is positive, and the assemblage of a great number of positive ideas of space or duration. But what still remains beyond this, we have no more a positive, distinct notion of, than a mariner has of the depth of the sea, where, having let down a large portion of his sounding-line, he reaches no bottom: whereby he knows the depth to be so many fathoms, and more; but how much that *more* is, he hath no distinct notion at all: and could he always supply new line, and find the plummet always sink without ever stopping, he would be something in the posture of the mind reaching after a complete and positive idea of infinity. In which case, let this line be ten or ten thousand fathoms long, it equally discovers what is beyond it; and gives only this confused and comparative idea, that this is not all, but one may yet go farther. So much as the mind comprehends of any space, it has a positive idea of: but in endeavouring to make it infinite, it being always enlarging, always advancing, the idea is still imperfect and incomplete. So much space as the mind takes a view of, in its contemplation of greatness, is a clear picture, and positive in the understanding: but infinite is still greater. (1.) Then the idea of so much, is positive and clear. (2.) The idea of greater, is also clear, but it is but a comparative idea, the idea of so much greater as cannot be comprehended. (3.) And this is plain negative, not positive. For he has no positive, clear idea, of the largeness of any extension (which is that sought for in the idea of infinite), that has not a comprehensive idea of the dimensions of it: and such, nobody, I think, pretends to in what is infinite. For, to say a man has a positive,

clear idea of any quantity, without knowing how great it is, is as reasonable as to say, he has the positive, clear idea of the number of the sands on the sea-shore, who knows not how many there be, but only that they are more than twenty. For just such a perfect and positive idea has he of an infinite space or duration who says it is larger than the extent or duration of ten, one hundred, one thousand, or any other number of miles or years, whereof he has or can have a positive idea; which is all the idea, I think, we have of infinite. So that what lies beyond our positive idea towards infinity lies in obscurity, and has the indeterminate confusion of a negative idea; wherein I know I neither do nor can comprehend all I would, it being too large for a finite and narrow capacity: and that cannot but be very far from a positive complete idea, wherein the greatest part of what I would comprehend is left out, under the undeterminate intimation of being still greater. For to say, that having in any quantity measured so much, or gone so far, you are not yet at the end, is only to say that that quantity is greater. So that the negation of an end in any quantity, is, in other words, only to say, that it is bigger: and a total negation of an end, is but the carrying this *bigger* still with you in all the progressions your thoughts shall make in quantity, and adding this idea of *still greater* to all the ideas you have or can be supposed to have of quantity. Now, whether such an idea as that be positive, I leave any one to consider.

16. *We have no positive idea of an infinite duration.*—I ask those who say they have a positive idea of eternity, whether their idea of duration includes in it succession or not? If it does not, they ought to show the difference of their notion of duration, when

applied to an eternal being, and to a finite; since, perhaps, there may be others, as well as I, who will own to them their weakness of understanding in this point; and acknowledge that the notion they have of duration forces them to conceive, that whatever has duration is of a longer continuance to-day than it was yesterday.

If to avoid succession in external existence, they return to the *punctum stans* of the schools, I suppose they will thereby very little mend the matter, or help us to a more clear and positive idea of infinite duration, there being nothing more inconceivable to me than duration without succession. Besides that *punctum stans*, if it signify any thing, being not *quantum*, finite or infinite cannot belong to it. But if our weak apprehensions cannot separate succession from any duration whatsoever, our idea of eternity can be nothing but of infinite succession of moments of duration wherein any thing does exist; and whether any one has or can have a positive idea of an actual infinite number, I leave him to consider, till his infinite number be so great that he himself can add no more to it: and as long as he can increase it, I doubt, he himself will think the idea he hath of it a little too scanty for positive infinity.

17. I think it unavoidable for every considering rational creature, that will but examine his own or any other existence, to have the notion of an eternal wise Being, who had no beginning; and such an idea of infinite duration I am sure I have. But this negation of a beginning, being but the negation of a positive thing, scarce gives me a positive idea of infinity; which whenever I endeavour to extend my thoughts to, I confess myself at a loss, and I find I cannot attain any clear comprehension of it.

18. *No positive idea of infinite space.*—He that thinks he has a positive idea of infinite space will, when he considers it, find that he can no more have a positive idea of the greatest than he has of the least space. For in this latter, which seems the easier of the two, and more within our comprehension, we are capable only of a comparative idea of smallness, which will always be less than any one whereof we have the positive idea. All our positive ideas of any quantity, whether great or little have always bounds; though our comparative idea, whereby we can always add to the one, and take from the other, hath no bounds. For that which remains, either great or little, not being comprehended in that positive idea which we have, lies in obscurity: and we have no other idea of it, but of the power of enlarging the one, and diminishing the other, without ceasing. A pestle and mortar will as soon bring any particle of matter to indivisibility, as the acutest thought of a mathematician: and a surveyor may as soon with his chain measure out infinite space as a philosopher by the quickest flight of mind reach it, or by thinking comprehend it; which is to have a positive idea of it. He that thinks on a cube of an inch diameter, has a clear and positive idea of it in his mind, and so can frame one of a half, a quarter, and an eighth, and so on, till he has the idea in his thoughts of something very little; but yet reaches not the idea of that incomprehensible littleness which division can produce. What remains of smallness is as far from his thoughts as when he first began; and therefore he never comes at all to have a clear and positive idea of that smallness which is consequent to infinite divisibility.

19. *What is positive, what negative, in our idea of*

infinite.—Every one that looks towards infinity does as I have said, at first glance make some very large idea of that which he applies it to, let it be space or duration; and possibly he wearies his thoughts by multiplying in his mind that first large idea: but yet by that he comes no nearer to the having a positive clear idea of what remains to make up a positive infinite, than the country-fellow had of the water which was yet to come, and pass the channel of the river where he stood:—

*Rusticus expectat dum defluat amnis; at ille
Labitur, et labetur in omne volubilis ævum.*

20. *Some think they have a positive idea of eternity, and not of infinite space.*—There are some I have met that put so much difference between infinite duration and infinite space, that they persuade themselves that they have a positive idea of eternity, but that they have not nor can have any idea of infinite space. The reason of which mistake I suppose to be this, that finding by a due contemplation of causes and effects that it is necessary to admit some eternal Being, and so to consider the real existence of that Being as taken up and commensurate to their idea of eternity: but, on the other side, not finding it necessary, but, on the contrary, apparently absurd, that body should be infinite, they forwardly conclude that they can have no idea of infinite space, because they can have no idea of infinite matter. Which consequence, I conceive, is very ill collected; because the existence of matter is no ways necessary to the existence of space, no more than the existence of motion or the sun is necessary to duration, though duration uses to be measured by it: and I doubt not but a man may

have the idea of ten thousand miles square without any body so big, as well as the idea of ten thousand years without any body so old. It seems as easy to me to have the idea of space empty of body, as to think of the capacity of a bushel without corn, or the hollow of a nut-shell without a kernel in it: it being no more necessary that there should be existing a solid body infinitely extended because we have an idea of the infinity of space, than it is necessary that the world should be external because we have an idea of infinite duration: and why should we think our idea of infinite space requires the real existence of matter to support it, when we find that we have as clear an idea of infinite duration to come, as we have of infinite duration past? though, I suppose, nobody thinks it conceivable that any thing does or has existed in that future duration. Nor is it possible to join our idea of future duration with present or past existence, any more than it is possible to make the ideas of yesterday, to-day, and to-morrow to be the same; or bring ages past and future together, and make them contemporary. But if these men are of the mind, that they have clearer ideas of infinite duration than of infinite space, because it is past doubt that God has existed from all eternity, but there is no real matter co-extended with infinite space; yet those philosophers who are of opinion that infinite space is possessed by God's infinite omnipresence, as well as infinite duration by his eternal existence, must be allowed to have as clear an idea of infinite space as of infinite duration; though neither of them, I think, has any positive idea of infinity in either case. For, whatsoever positive ideas a man has in his mind of any quantity, he can repeat it, and add it to the former, as

easy as he can add together the ideas of two days, or two paces (which are positive ideas of lengths he has in his mind), and so on, as long as he pleases: whereby, if a man had a positive idea of infinite, either duration or space, he could add two infinities together; nay, make one infinite infinitely bigger than another: absurdities too gross to be confuted!

21. *Supposed positive ideas of infinity cause of mistakes.*—But yet, if after all this there be men who persuade themselves that they have clear, positive, comprehensive ideas of infinity, it is fit they enjoy their privilege; and I should be very glad (with some others that I know who acknowledge that they have none such) to be better informed by their communication. For I have been hitherto apt to think that the great and inextricable difficulties which perpetually involve all discourses concerning infinity, whether of space, duration, or divisibility, have been the certain marks of a defect in our ideas of infinity, and the disproportion the nature thereof has to the comprehension of our narrow capacities. For whilst men talk and dispute of infinite space or duration as if they had as complete and positive ideas of them as they have of the names they use for them, or as they have of a yard, or an hour, or any other determinate quantity; it is no wonder if the incomprehensible nature of the thing they discourse of or reason about leads them into perplexities and contradictions, and their minds be overlaid by an object too large and mighty to be surveyed and managed by them.

22. *All these ideas from sensation and reflection.*—If I have dwelt pretty long on the considerations of duration, space, and number, and what arises from the contemplation of them, infinity, it is possibly no

more than the matter requires, there being few simple ideas whose modes give more exercise to the thoughts of men than those do. I pretend not to treat of them in their full latitude; it suffices to my design to show how the mind receives them, such as they are, from sensation and reflection; and how even the idea we have of infinity, how remote soever it may seem to be from any object of sense or operation of our mind, has nevertheless, as all our other ideas, its original there. Some mathematicians, perhaps, of advanced speculations, may have other ways to introduce into their minds ideas of infinity; but this hinders not but that they themselves, as well as all other men, got the first ideas which they had of infinity from sensation and reflection, in the method we have here set down.

CHAPTER XVIII.

OF OTHER SIMPLE MODES.

1. *Modes of motion.*—Though I have in the foregoing chapters shown how, from simple ideas taken in by sensation the mind comes to extend itself even to infinity; which, however, it may of all others seem most remote from any sensible perception, yet at last hath nothing in it but what is made out of simple ideas received into the mind by the senses, and afterwards there put together by the faculty the mind has to repeat its own ideas: though, I say, these might be instances enough of simple modes of the simple ideas of sensation, and suffice to show how the mind comes by them; yet I shall, for method's sake, though briefly, give an account of some few more, and then proceed to more complex ideas.

2. *To slide, roll, tumble, walk, creep, run, dance, leap, skip,* and abundance of others that might be named, are words which are no sooner heard but every one who understands English has presently in his mind distinct ideas which are all but the different modifications of motion. Modes of motion answer those of extension: *swift* and *slow* are two different ideas of motion, the measures whereof are made of the distances of time and space put together; so they are complex ideas comprehending time and space with motion.

3. *Modes of sounds.*—The like variety have we in sounds. Every articulate word is a different modification of sound; by which we see that, from the sense of hearing, by such modifications, the mind may be furnished with distinct ideas to almost an infinite number. Sounds, also, besides the distinct cries of birds and beasts, are modified by diversity of notes of different length put together, which make that complex idea called a “tune,” which a musician may have in his mind when he hears or makes no sound at all, by reflecting on the ideas of those sounds so put together silently in his own fancy.

4. *Modes of colours.*—Those of colours are also very various; some we take notice of, as the different degrees, or, as they are termed “shades,” of the same colour. But since we very seldom make assemblages of colours either for use or delight but figure is taken in also, and has its parts in it, as in painting, weaving, needle-works, &c., those which are taken notice of do most commonly belong to mixed modes, as being made up of ideas of divers kinds, viz., figure and colour, such as beauty, rainbow, &c.

5. *Modes of tastes.*—All compounded tastes and

smells are also modes made up of these simple ideas of those senses. But they, being such as generally we have no names for, are less taken notice of, and cannot be set down in writing; and therefore must be left without enumeration to the thoughts and experience of my reader.

6. *Some simple modes have no names.*—In general it may be observed that those simple modes which are considered but as different degrees of the same simple idea, though they are in themselves, many of them, very distinct ideas, yet have ordinarily no distinct names, nor are much taken notice of as distinct ideas where the difference is but very small between them. Whether men have neglected these modes, and given no names to them, as wanting measures nicely to distinguish them; or because, when they were so distinguished, that knowledge would not be of general or necessary use; I leave it to the thoughts of others: it is sufficient to my purpose to show, that all our simple ideas come to our minds only by sensation and reflection; and that when the mind has them, it can variously repeat and compound them, and so make new complex ideas. But though white, red, or sweet, &c., have not been modified or made into complex ideas by several combinations, so as to be named, and thereby ranked into species; yet some others of the simple ideas (*viz.*, those of unity, duration, motion, &c., above instanced in, as also power and thinking) have been thus modified to a great variety of complex ideas with names belonging to them.

7. *Why some modes have and others have not names.*—The reason whereof, I suppose, has been this, that the great concernment of men being with men one amongst another, the knowledge of men and their

actions and the signifying of them to one another was most necessary; and therefore they made ideas of action very nicely modified, and gave those complex ideas names that they might the more easily record and discourse of those things they were daily conversant in without long ambages and circumlocutions; and that the things they were continually to give and receive information about might be the easier and quicker understood. That this is so, and that men in framing different complex ideas, and giving them names, have been much governed by the end of speech in general (which is a very short and expedite way of conveying their thoughts one to another), is evident in the names which in several arts have been found out and applied to several complex ideas of modified actions belonging to their several trades, for despatch sake, in their direction or discourses about them. Which ideas are not generally framed in the minds of men not conversant about these operations. And hence the words that stand for them by the greatest part of men of the same language are not understood. *V. g., coltshire, drilling, filtration, cohobation*, are words standing for certain complex ideas, which being seldom in the minds of any but those few whose particular employments do at every turn suggest them to their thoughts, those names of them are not generally understood but by smiths and chymists; who, having framed the complex ideas which these words stand for, and having given names to them or recieved them from others, upon hearing of these names in communication readily conceive those ideas in their minds; as by *cohobation*, all the simple ideas of distilling, and the pouring the liquor distilled from any thing back upon the remaining matter, and distilling it again.

Thus we see that there are great varieties of simple ideas, as of tastes and smells, which have no names; and of modes many more. Which either not having been generally enough observed, or else not being of any great use to be taken notice of in the affairs and converse of men, they have not had names given to them, and so pass not for species. This we shall have occasion hereafter to consider more at large when we come to speak of words.

CHAPTER XIX.

OF THE MODES OF THINKING.

1. *Sensation, remembrance, contemplation, &c.*—When the mind turns its view inwards upon itself, and contemplates its own actions, thinking is the first that occurs. In it the mind observes a great variety of modifications, and from thence receives distinct ideas. Thus the perception or thought which actually accompanies and is annexed to any impression on the body made by an external object, being distinct from all other modifications of thinking, furnishes the mind with a distinct idea which we call “sensation;” which is, as it were, the actual entrance of any idea into the understanding by the senses. The same idea, when it again recurs without the operation of the like object on the external sensory, is “remembrance:” if it be sought after by the mind, and with pain and endeavour found, and brought again in view, it is “recollection:” if it be held there long under attentive consideration, it is “contemplation:” when ideas float in our mind without any reflection or regard of the understanding, it is that which the French call *rêverie*; our language has

scarce a name for it: when the ideas that offer themselves (for, as I have observed in another place, whilst we are awake there will always be a train of ideas succeeding one another in our minds) are taken notice of, and, as it were, registered in the memory, it is "attention:" when the mind with great earnestness, and of choice, fixes its view on any idea, considers it on all sides, and will not be called off by the ordinary solicitation of other ideas, it is that we call "intension," or "study;" "sleep," without dreaming is rest from all these: and "dreaming" itself is the having of ideas (whilst the outward senses are stopped, so that they receive not outward objects with their usual quickness) in the mind, not suggested by any external objects or known occasion, nor under any choice or conduct of the understanding at all; and whether that which we call "ecstasy" be not dreaming with the eyes open, I leave to be examined.

2. These are some few instances of those various modes of thinking which the mind may observe in itself, and so have as distinct ideas of as it hath of white and red, a square or a circle. I do not pretend to enumerate them all, nor to treat at large of this set of ideas which are got from reflection; that would be to make a volume. It suffices to my present purpose to have shown here, by some few examples, of what sort these ideas are, and how the mind comes by them; especially since I shall have occasion hereafter to treat more at large of reasoning, judging, volition, and knowledge, which are some of the most considerable operations of the mind, and modes of thinking.

3. *The various attention of the mind in thinking.*—But perhaps it may not be an unpardonable digression, nor wholly impertinent to our present design, if

we reflect here upon the different state of the mind in thinking which those instances of attention, *reverie*, and dreaming, &c., before mentioned, naturally enough suggest. That there are ideas, some or other, always present in the mind of a waking man, every one's experience convinces him; though the mind employs itself about them with several degrees of attention. Sometimes the mind fixes itself with so much earnestness on the contemplation of some objects, that it turns their ideas on all sides, marks their relations and circumstances, and views every part so nicely, and with such intension, that it shuts out all other thoughts, and takes no notice of the ordinary impressions made then on the senses, which at another season would produce very sensible perceptions; at other times, it barely observes the train of ideas that succeed in the understanding without directing and pursuing any of them; and at other times it lets them pass almost quite unregarded, as faint shadows that make no impression.

4. *Hence it is probable that thinking is the action, not essence, of the soul.*—This difference of intension and remission of the mind in thinking, with a great variety of degrees between earnest study and very near minding nothing at all, every one, I think, has experimented in himself. Trace it a little farther, and you find the mind in sleep retired, as it were, from the senses, and out of the reach of those motions made on the organs of sense, which at other times produce very vivid and sensible ideas. I need not, for this, instance in those who sleep out whole stormy nights without hearing the thunder, or seeing the lightning, or feeling the shaking of the house, which are sensible enough to those who are waking. But in this retirement of the mind from the senses, it often retains a yet more

loose and incoherent manner of thinking, which we call "dreaming;" and, last of all, sound sleep closes the scene quite, and puts an end to all appearances. This, I think, almost every one has experience of in himself, and his own observation without difficulty leads him thus far. That which I would farther conclude from hence is, that since the mind can sensibly put on, at several times, several degrees of thinking; and be sometimes even in a waking man so remiss as to have thoughts dim and obscure, to that degree that they are very little removed from none at all; and at last, in the dark retirements of sound sleep, loses the sight perfectly of all ideas whatsoever; since, I say, this is evidently so in matter of fact and constant experience; I ask, whether it be not probable, that thinking is the action and not the essence of the soul? since the operations of agents will easily admit of intension and remission; but the essences of things are not conceived capable of any such variation. But this by the by.

CHAPTER XX.

OF MODES OF PLEASURE AND PAIN.

1. *Pleasure and pain simple ideas.*—Amongst the simple ideas which we receive both from sensation and reflection, pain and pleasure are two very considerable ones. For as in the body there is sensation barely in itself, or accompanied with pain or pleasure; so the thought or perception of the mind is simply so, or else accompanied also with pleasure or pain, delight or trouble, call it how you please. These, like other simple ideas, cannot be described, nor their

names defined: the way of knowing them is, as of the simple ideas of the senses, only by experience. For to define them by the presence of good or evil, is no otherwise to make them known to us than by making us reflect on what we feel in ourselves, upon the several and various operations of good and evil upon our minds, as they are differently applied to or considered by us.

2. *Good and evil, what.*— Things then are good or evil only in reference to pleasure or pain. That we call “good,” which is apt to cause or increase pleasure, or diminish pain, in us; or else to procure or preserve us the possession of any other good, or absence of any evil. And, on the contrary, we name that “evil,” which is apt to produce or increase any pain, or diminish any pleasure, in us; or else to procure us any evil, or deprive us of any good. By “pleasure” and “pain,” I must be understood to mean of body or mind, as they are commonly distinguished; though, in truth, they be only different constitutions of the mind, sometimes occasioned by disorder in the body, sometimes by thoughts in the mind.

3. *Our passions moved by good and evil.*— Pleasure and pain, and that which causes them, good and evil, are the hinges on which our passions turn: and if we reflect on ourselves, and observe how these, under various considerations, operate in us,—what modifications or tempers of mind, what internal sensations (if I may so call them) they produce in us,—we may thence form to ourselves the ideas of our passions.

4. *Love.*— Thus any one reflecting upon the thought he has of the delight which any present or absent thing is apt to produce in him, has the idea we

call "love." For when a man declares in autumn, when he is eating them, or in spring, when there are none, that he loves grapes, it is no more but that the taste of grapes delights him: let an alteration of health or constitution destroy the delight of their taste, and he then can be said to love grapes no longer.

5. *Hatred*.—On the contrary, the thought of the pain which any thing present or absent is apt to produce in us, is what we call "hatred." Were it my business here to inquire any further than into the bare ideas of our passions, as they depend on different modifications of pleasure and pain, I should remark, that our love and hatred of inanimate, insensible beings is commonly founded on that pleasure and pain which we receive from their use and application any way to our senses, though with their destruction; but hatred or love to beings capable of happiness or misery, is often the uneasiness or delight which we find in ourselves, arising from [a consideration of] their very being or happiness. Thus the being and welfare of a man's children or friends producing constant delight in him, he is said constantly to love them. But it suffices to note, that our ideas of love and hatred are but the dispositions of the mind in respect of pleasure and pain in general, however caused in us.

6. *Desire*.—The uneasiness a man finds in himself upon the absence of any thing whose present enjoyment carries the idea of delight with it, is that we call "desire," which is greater or less as that uneasiness is more or less vehement. [Where, by the by, it may perhaps be of some use to remark, that the chief, if not only, spur to human industry and action is uneasiness: for, whatsoever good is proposed, if its absence carries no displeasure nor pain with it, if a man

be easy and content without it, there is no desire of it, nor endeavour after it; there is no more but a bare *velleity*,—the term used to signify the lowest degree of desire, and that which is next to none at all, when there is so little uneasiness in the absence of any thing, that it carries a man no farther than some faint wishes for it, without any more effectual or vigorous use of the means to attain it. Desire also is stopped or abated by the opinion of the impossibility or unattainableness of the good proposed, as far as the uneasiness is cured or allayed by that consideration. This might carry our thoughts farther, were it seasonable in this place.]

Joy.—Joy is a delight of the mind from the consideration of the present or assured approaching possession of a good; and we are then possessed of any good, when we have it so in our power that we can use it when we please. Thus a man almost starved has a joy at the arrival of relief, even before he has the pleasure of using it; and a father in whom the very well-being of his children causes delight is always, as long as his children are in such a state, in the possession of that good; for he needs but to reflect on it to have that pleasure.

8. *Sorrow*.—Sorrow is uneasiness in the mind upon the thought of a good lost, which might have been enjoyed longer; or the sense of a present evil.

9. *Hope*.—Hope is that pleasure in the mind which every one finds in himself, upon the thought of a profitable future enjoyment of a thing which is apt to delight him.

10. *Fear*.—Fear is an uneasiness of the mind, upon the thought of future evil likely to befall us.

11. *Despair*.—Despair is the thought of the unat-

tainableness of any good, which works differently in men's minds; sometimes producing uneasiness or pain, sometimes rest and indolency.

12. *Anger*.—Anger is uneasiness or discomposure of the mind upon the receipt of any injury, with a present purpose of revenge.

13. *Envy*.—Envy is an uneasiness of the mind caused by the consideration of a good we desire, obtained by one we think should not have had it before us.

14. *What passions all men have*.—These two last, “envy” and “anger,” not being caused by pain and pleasure simply in themselves, but having in them some mixed considerations of ourselves and others, are not therefore to be found in all men, because those other parts of valuing their merits, or intending revenge, is wanting in them; but all the rest, terminated purely in pain and pleasure, are, I think, to be found in all men. For we love, desire, rejoice and hope, only in respect of pleasure; we hate fear, and grieve, only in respect of pain ultimately: in fine, all these passions are moved by things only as they appear to be the causes of pleasure and pain, or to have pleasure or pain some way or other annexed to them. Thus we extend our hatred usually to the subject (at least, if a sensible or voluntary agent) which has produced pain in us, because the fear it leaves is a constant pain; but we do not so constantly love what has done us good, because pleasure operates not so strongly on us as pain, and because we are not so ready to have hope it will do so again. But this by the by.

15. *Pleasure and pain, what*.—By “pleasure” and “pain,” “delight” and “uneasiness,” I must all along be understood (as I have above intimated) to mean, not only bodily pain and pleasure, but whatsoever de-

light or uneasiness is felt by us, whether arising from any grateful or unacceptable sensation or reflection.

16. It is farther to be considered, that, in reference to the passions, the removal or lessening of a pain is considered and operates as a pleasure; and the loss or diminishing of a pleasure, as a pain.

17. *Shame.*—The passions, too, have most of them, in most persons, operations on the body, and cause various changes in it; which, not being always sensible do not make a necessary part of the idea of each passion. For shame, which is an uneasiness of the mind upon the thought of having done something which is indecent, or will lessen the valued esteem which others have for us, has not always blushing accompanying it.

18. *These instances do show how our ideas of the passions are got from sensation and reflection.*—I would not be mistaken here, as if I meant this as a discourse of the passions; they are many more than those I have here named: and those I have taken notice of would each of them require a much larger and more accurate discourse. I have only mentioned these here, as so many instances of modes of pleasure and pain resulting in our minds from various considerations of good and evil. I might, perhaps, have instanced in other modes of pleasure and pain more simple than these; as the pain of hunger and thirst, and the pleasure of eating and drinking to remove them; the pain of teeth set on edge, and the pleasure of music; pain from captious, uninstructional wrangling, and the pleasure of rational conversation with a friend, or of well-directed study in the search and discovery of truth. But the passions being of much more concernment to us, I rather made choice to instance in

them, and show how the ideas we have of them are derived from sensation and reflection.

CHAPTER XXI.

OF POWER.

I. *This idea how got.*—The mind being every day informed, by the senses, of the alteration of those simple ideas it observes in things without, and taking notice how one comes to an end and ceases to be, and another begins to exist which was not before; reflecting also, on what passes within itself, and observing a constant change of its ideas, sometimes by the impression of outward objects on the senses, and sometimes by the determination of its own choice; and concluding, from what it has so constantly observed to have been, that the like changes will for the future be made in the same things by like agents, and by the like ways; considers in one thing the possibility of having any of its simple ideas changed, and in another the possibility of making that change; and so comes by that idea which we call “power.” Thus we say, fire has a power to melt gold; *i. e.*, to destroy the consistency of its insensible parts, and consequently its hardness, and make it fluid; and gold has a power to be melted: that the sun has a power to blanch wax; and wax a power to be blanched by the sun, whereby the yellowness is destroyed, and whiteness made to exist in its room. In which and the like cases, the power we consider is in reference to the change of perceivable ideas: for we cannot observe any alteration to be made in, or operation upon, any thing, but by the observable change of its sensible ideas: nor conceive any altera-

tion to be made, but by conceiving a change of some of its ideas.

2. *Power active and passive.*—Power thus considered is twofold; viz., as able to make, or able to receive, any change; the one may be called “active,” and the other “passive,” power. Whether matter be not wholly destitute of active power, as its author, God, is truly above all passive power; and whether the intermediate state of created spirits be not that alone which is capable of both active and passive power, may be worth consideration. I shall not now enter into that inquiry: my present business being not to search into the original of power, but how we come by the idea of it. But since active powers make so great a part of our complex ideas of natural substances (as we shall see hereafter), and I mention them as such, according to common apprehension; yet they being not, perhaps, so truly active powers as our hasty thoughts are apt to represent them, I judge it not amiss, by this intimation, to direct our minds to the consideration of God and spirits, for the clearest idea of active power.

3. *Power includes relation.*—I confess power includes in it some kind of relation,—a relation to action or change; as, indeed, which of our ideas, of what kind soever, when attentively considered, does not? For our ideas of extension, duration, and number, do they not all contain in them a secret relation of the parts? Figure and motion have something relative in them much more visibly. And sensible qualities, as colours and smells, &c., what are they but the powers of different bodies in relation to our perception, &c.? And if considered in the things themselves, do they not depend on the bulk, figure, texture, and

motion of the parts? All which include some kind of relation in them. Our idea therefore of power, I think, may well have a place amongst other simple ideas, and be considered as one of them, being one of those that make a principal ingredient in our complex ideas of substances, as we shall hereafter have occasion to observe.

4. *The clearest idea of active power had from spirit.*—[We are abundantly furnished with the idea of passive power, by almost all sorts of sensible things. In most of them we cannot avoid observing their sensible qualities, nay, their very substances to be in a continual flux:] and therefore with reason we look on them as liable still to the same change. Nor have we of active power (which is the more proper signification of the word “power”) fewer instances; since, whatever change is observed, the mind must collect a power somewhere, able to make that change, as well as a possibility in the thing itself to receive it. But yet, if we will consider it attentively, bodies, by our senses, do not afford us so clear and distinct an idea of active power, as we have from reflection on the operations of our minds. For, all power relating to action, and there being but two sorts of action whereof we have any idea, viz., thinking and motion, let us consider whence we have the clearest ideas of the powers which produce these actions. (1.) Of thinking, body affords us no idea at all: it is only from reflection that we have that. (2.) Neither have we from body any idea of the beginning of motion. A body at rest affords us no idea of any active power to move; and when it is set in motion itself, that motion is rather a passion than an action in it. For when the ball obeys the stroke of a billiard-stick, it is not any action of

the ball, but bare passion: also when by impulse it sets another ball in motion that lay in its way, it only communicates the motion it had received from another, and loses in itself so much as the other received; which gives us but a very obscure idea of an active power of moving in body, whilst we observe it only to transfer but not produce any motion. For it is but a very obscure idea of power, which reaches not the production of the action, but the continuation of the passion. For so is motion, in a body impelled by another: The continuation of the alteration made in it from rest to motion being little more an action, than the continuation of the alteration of its figure by the same blow is an action. The idea of the beginning of motion we have only from reflection on what passes in ourselves, where we find by experience, that, barely by willing it, barely by a thought of the mind, we can move the parts of our bodies which were before at rest. So that it seems to me, we have, from the observation of the operation of bodies by our senses, but a very imperfect, obscure, idea of active power, since they afford us not any idea in themselves of the power to begin any action, either motion or thought. But if from the impulse bodies are observed to make one upon another, any one thinks he has a clear idea of power, it serves as well to my purpose, sensation being one of those ways whereby the mind comes by its ideas; only I thought it worth while to consider here by the way, whether the mind doth not receive its idea of active power clearer from reflection on its own operations, than it doth from any external sensation.

5. *Will and understanding, two powers.*— This at least I think evident, that we find in ourselves a power

to begin or forbear, continue or end, several [actions] of our minds and motions of our bodies, barely by [a thought] or preference of the mind [ordering, or, as it were, commanding the doing or not doing such or such a particular action.] This power which the mind has [thus to order] the consideration of any idea, or the forbearing to consider it, or to prefer the motion of any part of the body to its rest, [and *vice versâ*, in any particular instance,] is that which we call “the will.” The actual [exercise of that power, by directing any particular action or its forbearance,] is that which we call “volition” or “willing.” [The forbearance of that action consequent to such order or command of the mind, is called “voluntary;” and whatsoever action is performed without such a thought of the mind, is called “involuntary.”] The power of perception is that which we call “the understanding.” Perception, which we make the act of the understanding, is of three sorts: (1.) The perception of ideas in our minds. (2.) The perception of the signification of signs. (3.) The perception of the [connexion or repugnancy,] agreement or disagreement, [that there is between any of our] ideas. All these are attributed to the understanding, or perceptive power, though it be [the two latter only that use allows us to say we understand.]

6. *Faculties*.—These powers of the mind, viz., of perceiving and of preferring, are usually called by another name: and the ordinary way of speaking, is that the understanding and will are two faculties of the mind; a word proper enough, if it be used, as all words should be, so as not to breed any confusion in men’s thoughts by being supposed (as I suspect it has been) to stand for some real beings in the soul,

that performed those actions of understanding and volition. For when we say, the will is the commanding and superior faculty of the soul; that it is or is not free; that it determines the inferior faculties; that it follows the dictates of the understanding, &c.; though these and the like expressions, by those that carefully attend to their own ideas, and conduct their thoughts more by the evidence of things than the sound of words, may be understood in a clear and distinct sense: yet I suspect, I say, that this way of speaking of faculties has misled many into a confused notion of so many distinct agents in us, which had their several provinces and authorities, and did command, obey, and perform several actions, as so many distinct beings; which has been no small occasion of wrangling, obscurity, and uncertainty in questions relating to them.

7. *Whence the ideas of liberty and necessity.*— Every one, I think, finds in himself a power to begin or forbear, continue or put an end to, several actions in himself. [From the consideration of the extent of this power of the mind over the actions of the man, which every one finds in himself, arise the ideas of liberty and necessity.]

8. *Liberty, what.*— All the actions that we have any idea of, reducing themselves, as has been said, to these two, viz., thinking and motion, so far as a man has a power to think or not to think, to move or not to move, according to the preference or direction of his own mind, so far is a man free. Wherever any performance or forbearance are not equally in a man's power, wherever doing or not doing will not equally follow upon the preference of his mind directing it, there he is not free, though perhaps the action may

be voluntary. So that the idea of liberty is the idea of a power in any agent to do or forbear any particular action, according to the determination or thought of the mind, whereby either of them is preferred to the other; where either of them is not in the power of the agent, to be produced by him according to his volition, there he is not at liberty, that agent is under necessity. So that liberty cannot be where there is no thought, no volition, no will; but there may be thought, there may be will, there may be volition, where there is no liberty. A little consideration of an obvious instance or two may make this clear.

9. *Supposes the understanding and will.*—A tennis-ball, whether in motion by the stroke of a racket, or lying still at rest, is not by any one taken to be a free agent. If we inquire into the reason, we shall find it is, because we conceive not a tennis-ball to think, and consequently not to have any volition, or preference of motion to rest, or *vice versâ*; and therefore has not liberty, is not a free agent; but all its both motion and rest come under our idea of necessary, and are so called. Likewise a man falling into the water (a bridge breaking under him) has not herein liberty, is not a free agent. For though he has volition, though he prefers his not falling to falling; yet the forbearance of that motion not being in his power, the stop or cessation of that motion follows not upon his volition; and therefore therein he is not free. So a man striking himself or his friend, by a convulsive motion of his arm, which it is not in his power, by volition or the direction of his mind, to stop or forbear, nobody thinks he has, in this, liberty; every one pities him, as acting by necessity and restraint.

10. *Belongs not to volition.*—Again: Suppose a

man be carried, whilst fast asleep, into a room, where is a person he longs to see and speak with, and be there locked fast in, beyond his power to get out; he awakes, and is glad to find himself in so desirable company, which he stays willingly in, *i.e.*, prefers his stay to going away. I ask, is not this stay voluntary? I think nobody will doubt it; and yet, being locked fast in, it is evident he is not at liberty not to stay, he has not freedom to be gone. So that liberty is not an idea belonging to volition, or preferring; but to the person having the power of doing, or forbearing to do, according as the mind shall choose or direct. Our idea of liberty reaches as far as that power, and no farther. For wherever restraint comes to check that power, or compulsion takes away that indifferency of ability to act, or to forbear acting, there liberty, and our notion of it, presently ceases.

II. *Voluntary opposed to involuntary, not to necessary.*—We have instances enough, and often more than enough, in our own bodies. A man's heart beats, and the blood circulates, which it is not in his power by any thought or volition to stop; and therefore, in respect of these motions, where rest depends not on his choice, nor would follow the determination of his mind, if it should prefer it, he is not a free agent. Convulsive motions agitate his legs, so that, though he wills it ever so much, he cannot by any power of his mind stop their motion (as in that odd disease called *chorea sancti Viti*), but he is perpetually dancing: he is not at liberty in this action, but under as much necessity of moving as a stone that falls or a tennis-ball struck with a racket. On the other side, a palsy or the stocks hinder his legs from obeying the determination of his mind, if it would thereby transfer his body to another

place. In all these there is want of freedom, though the sitting still even of a paralytic, whilst he prefers it to a removal, is truly voluntary. Voluntary, then, is not opposed to necessary, but to involuntary. For a man may prefer what he can do, to what he cannot do; the state he is in, to its absence or change, though necessity has made it in itself unalterable.

12. *Liberty, what.*—As it is in the motions of the body, so it is in the thoughts of our minds: where any one is such, that we have power to take it up, or lay it by, according to the preference of the mind, there we are at liberty. A waking man, being under the necessity of having some ideas constantly in his mind, is not at liberty to think, or not to think, no more than he is at liberty, whether his body shall touch any other or no: but whether he will remove his contemplation from one idea to another, is many times in his choice; and then he is, in respect of his ideas, as much at liberty as he is in respect of bodies he rests on: he can at pleasure remove himself from one to another. But yet some ideas to the mind, like some motions to the body, are such as in certain circumstances it cannot avoid, nor obtain their absence by the utmost effort it can use. A man on the rack is not at liberty to lay by the idea of pain, and divert himself with other contemplations: and sometimes a boisterous passion hurries our thoughts, as a hurricane does our bodies, without leaving us the liberty of thinking on other things, which we would rather choose. But as soon as the mind regains the power to stop or continue, begin or forbear any of these motions of the body without, or thoughts within, according as it thinks fit to prefer either to the other, we then consider the man as a free agent again.

13. *Necessity, what.*—Wherever thought is wholly wanting, or the power to act or forbear according to the direction of thought, there necessity takes place. This, in an agent capable of volition, when the beginning or continuation of any action is contrary to that preference of his mind, is called “compulsion;” when the hindering or stopping any action is contrary to this volition, it is called “restraint.” Agents that have no thought, no volition at all, are in every thing necessary agents.

14. *Liberty belongs not to the will.*—If this be so (as I imagine it is), I leave it to be considered, whether it may not help to put an end to that long agitated, and I think unreasonable, because unintelligible question, viz., Whether man’s will be free or no? For, if I mistake not, it follows, from what I have said that the question itself is altogether improper; and it is as insignificant to ask whether man’s will be free, as to ask whether his sleep be swift, or his virtue square: liberty being as little applicable to the will, as swiftness of motion is to sleep, or squareness to virtue. Every one would laugh at the absurdity of such a question as either of these; because it is obvious that the modifications of motion belong not to sleep, nor the difference of figure to virtue: and when any one well considers it, I think he will as plainly perceive, that liberty, which is but a power, belongs only to agents, and cannot be an attribute or modification of the will, which is also but a power.

15. *Volition.*—[Such is the difficulty of explaining and giving clear notions of internal actions by sounds, that I must here warn my reader that “ordering, directing, choosing, preferring,” &c., which I have made use of, will not distinctly enough express volition unless

he will reflect on what he himself does when he wills. For example: "Preferring," which seems perhaps best to express the act of volition, does it not precisely. For though a man would prefer flying to walking, yet who can say he ever wills it? Volition, it is plain, is an act of the mind knowingly exerting that dominion it takes itself to have over any part of the man, by employing it in or withholding it from any particular action.] And what is the will, but the faculty to do this? And is that faculty any thing more in effect than a power,—the power of [the mind to determine its thought to the producing, continuing, or stopping any action, as far as it depends on us?] For, can it be denied, that whatever agent has a power to think on its own actions, and to prefer their doing or omission either to other, has that faculty called "will?" Will then is nothing but such a power. Liberty, on the other side, is the power a man has to do or forbear doing any particular action, according as its doing or forbearance has the actual preference in the mind; which is the same thing as to say, according as he himself wills it.

16. *Powers belong to agents.*—It is plain then that the will is nothing but one power or ability, and freedom another power or ability: so that to ask whether the will has freedom, is to ask whether one power has another power, one ability another ability? a question at first sight too grossly absurd to make a dispute, or need an answer. For who is it that sees not, that powers belong only to agents, and are attributes only of substances, and not of powers themselves? So that this way of putting the question, viz., Whether the will be free? is in effect to ask, Whether the will be a substance, an agent? or at least to suppose it, since

freedom can properly be attributed to nothing else. If freedom can with any propriety of speech be applied to power, it may be attributed to the power that is in a man to produce or forbear producing motion in parts of his body, by choice or preference; which is that which denominates him free, and is freedom itself. But if any one should ask whether freedom were free, he would be suspected not to understand well what he said; and he would be thought to deserve Midas's ears, who, knowing that "rich" was a denomination from the possession of riches, should demand whether riches themselves were rich.

17. However the name "faculty" which men have given to this power called the "will," and whereby they have been led into a way of talking of the will as acting, may, by an appropriation that disguises its true sense, serve a little to palliate the absurdity; yet the will, in truth, signifies nothing but a power or ability to prefer or choose; and when the will, under the name of a "faculty," is considered as it is, barely as an ability to do something, the absurdity in saying it is free or not free, will easily discover itself. For if it be reasonable to suppose and talk of faculties as distinct beings that can act (as we do when we say, "The will orders," and "The will is free,") it is fit that we should make a speaking faculty, and a walking faculty, and a dancing faculty, by which those actions are produced which are but several modes of motion; as well as we make the will and understanding to be faculties by which the actions of choosing and perceiving are produced, which are but several modes of thinking; and we may as properly say, that it is the singing faculty sings, and the dancing faculty dances, as that the will chooses, or that the understanding con-

ceives; or, as is usual, that the will directs the understanding, or the understanding obeys or obeys not the will: it being altogether as proper and intelligible to say, that the power of speaking directs the power of singing, or the power of singing obeys or disobeys the power of speaking.

18. This way of talking, nevertheless, has prevailed, and, as I guess, produced great confusion. For, these being all different powers in the mind or in the man to do several actions, he exerts them as he thinks fit: but the power to do one action is not operated on by the power of doing another action. For the power of thinking operates not on the power of choosing, nor the power of choosing on the power of thinking; no more than the power of dancing operates on the power of singing, or the power of singing on the power of dancing: as any one who reflects on it will easily perceive: and yet this is it which we say when we thus speak, that the will operates on the understanding, or the understanding on the will.

19. I grant that this or that actual thought may be the occasion of volition, or exercising the power a man has to choose; or the actual choice of the mind, the cause of actual thinking on this or that thing: as the actual singing of such a tune may be the cause of dancing such a dance; and the actual dancing of such a dance, the occasion of singing such a tune. But in all these it is not one power that operates on another; but it is the mind that operates and exerts these powers; it is the man that does the action, it is the agent that has power, or is able to do. For powers are relations, not agents: and that which has the power or not the power to operate, is that alone which is or is not free, and not the power itself: for freedom,

or not freedom, can belong to nothing but what has or has not a power to act.

20. *Liberty belongs not to the will.*— The attributing to faculties that which belonged not to them, has given occasion to this way of talking: but the introducing into discourses concerning the mind, with the name of faculties, a notion of their operating, has, I suppose, as little advanced our knowledge in that part of ourselves, as the great use and mention of the like invention of faculties in the operations of the body has helped us in the knowledge of physic. Not that I deny there are faculties, both in the body and mind: they both of them have their powers of operating, else neither the one nor the other could operate. For nothing can operate that is not able to operate; and that is not able to operate that has no power to operate. Nor do I deny that those words, and the like, are to have their place in the common use of languages that have made them current. It looks like too much affectation wholly to lay them by: and philosophy itself, though it likes not a gaudy dress, yet when it appears in public, must have so much complacency as to be clothed in the ordinary fashion and language of the country, so far as it can consist with truth and perspicuity. But the fault has been that faculties have been spoken of and represented as so many distinct agents. For it being asked, what it was that digested the meat in our stomachs? it was a ready and very satisfactory answer, to say, that it was the digestive faculty. “What was it that made any thing come out of the body?” The expulsive faculty. “What moved?” The motive faculty: and so in the mind, the intellectual faculty, or the understanding, understood; and the elective faculty, or the will, willed or commanded.

This is, in short, to say that the ability to digest, digested; and the ability to move, moved; and the ability to understand, understood. For "faculty, ability, and power," I think, are but different names of the same things: which ways of speaking, when put into more intelligible words, will, I think, amount to thus much; that digestion is performed by something that is able to digest; motion, by something able to move; and understanding, by something able to understand. And in truth it would be very strange, if it should be otherwise; as strange as it would be for a man to be free without being able to be free.

21. *But to the agent or man.*—To return, then, to the inquiry about liberty, I think the question is not proper, whether the will be free, but whether a man be free. Thus, I think.

First. That so far as any one can, by [the direction or choice of his mind preferring] the existence of any action to the non-existence of that action, and *vice versâ*, make it to exist or not exist, so far he is free. For if I can by [a thought directing] the motion of my finger make it move when it was at rest, or *vice versâ*, it is evident that, in respect of that, I am free; and if I can, by a like thought of my mind preferring one to the other, produce either words or silence, I am at liberty to speak or hold my peace: and as far as this power reaches, of acting or not acting, by the determination of his own thought preferring either, so far is a man free. For how can we think any one freer than to have the power to do what he will? And so far as any one can, by preferring any action to its not being, or rest to any action, produce that action or rest, so far can he do what he will. For such a preferring of action to its absence, is the willing of it;

and we can scarce tell how to imagine any being freer than to be able to do what he wills. So that, in respect of actions within the reach of such a power in him, a man seems as free as it is possible for freedom to make him.

22. *In respect of willing a man is not free.*— But the inquisitive mind of man, willing to shift off from himself, as far as he can, all thoughts of guilt, though it be by putting himself into a worse state than that of fatal necessity, is not content with this: freedom, unless it reaches farther than this, will not serve the turn: and it passes for a good plea, that a man is not free at all, if he be not as free to will as he is to act what he wills. Concerning a man's liberty, there yet therefore is raised this farther question, whether a man be free to will? which, I think, is what is meant, when it is disputed whether the will be free. And as to that I imagine,

23. Secondly. That willing or volition being an action, and freedom consisting in a power of acting or not acting, a man, in respect of willing [or the act of volition,] when any action in his power is once proposed to his thoughts, [as presently to be done,] cannot be free. The reason whereof is very manifest: for it being unavoidable that the action depending on his will should exist or not exist, and its existence or not-existence following perfectly the determination and preference of his will, he cannot avoid willing the existence or not existence of that action; it is absolutely necessary that he will the one or the other, *i.e.*, prefer the one to the other; since one of them must necessarily follow; and that which does follow, follows by the choice and determination of his mind; that is, by his willing it: for if he did not will it, it would not be. So that,

in respect of the act of willing, a man [in such a case] is not free: liberty consisting in a power to act or not to act, which, in regard of volition, a man [upon such a proposal] has not. [For it is unavoidably necessary to prefer the doing or forbearance of an action in a man's power, which is once so proposed to his thoughts; a man must necessarily will the one or the other of them: upon which preference or volition, the action or its forbearance certainly follows, and is truly voluntary. But the act of volition, or preferring one of the two, being that which he cannot avoid, a man, in respect of that act of willing, is under a necessity, and so cannot be free; unless necessity and freedom can consist together, and a man can be free and bound at once.] * * *

24. This then is evident, that a man is not at liberty to will or not to will, anything in his power that he once considers of; liberty consisting in a power to act, or to forbear acting, and in that only. For a man that sits still is said yet to be at liberty, because he can walk if he wills it. A man that walks is at liberty also, not because he walks or moves; but because he can stand still if he wills it. But if a man sitting still has not a power to remove himself, he is not at liberty; so likewise a man falling down a precipice, though in motion, is not at liberty, because he cannot stop that motion if he would. This being so, it is plain that a man that is walking, to whom it is proposed to give off walking, is not at liberty whether he will determine himself to walk or give off walking, or not, he must necessarily prefer one or the other of them, walking or not walking; and so it is in regard of all other actions in our power [so proposed, which are the far greater number. For, considering the

vast number of voluntary actions that succeed one another every moment that we are awake in the course of our lives, there are but few of them that are thought on or proposed to the will, till the time they are to be done: and in all such actions, as I have shown, the mind, in respect of willing,] has not a power to act or not to act, wherein consists liberty. The mind in that case has not a power to forbear willing; it cannot avoid some determination concerning them. Let the consideration be as short, the thought as quick, as it will, it either leaves the man in the state he was before thinking, or changes it; continues the action, or puts an end to it. Whereby it is manifest, that it orders and directs one in preference to or with neglect of the other, and thereby either the continuation or change becomes unavoidably voluntary.

25. *The will determined by something without it.*— Since then it is plain that in most cases a man is not at liberty whether he will or no, (for when an action in his power is proposed to his thoughts, he cannot forbear volition; he must determine one way or the other); the next thing demanded is, whether a man be at liberty to will which of the two he pleases, motion or rest? This question carries the absurdity of it so manifestly in itself, that one might thereby sufficiently be convinced that liberty concerns not the will. For to ask, whether a man be at liberty to will either motion or rest, speaking or silence, which he pleases? is to ask, whether a man can will what he wills, or be pleased with what he is pleased with? a question which, I think, needs no answer: and they who can make a question of it, must suppose one will to determine the acts of another, and another to determine that; and so on *in infinitum*.

26. To avoid these and the like absurdities, nothing can be of greater use than to establish in our minds determined ideas of the things under consideration. If the ideas of liberty and volition were well fixed in our understandings, and carried along with us in our minds, as they ought, through all the questions that are raised about them, I suppose a great part of the difficulties that perplex men's thoughts and entangle their understandings would be much easier resolved; and we should perceive where the confused signification of terms, or where the nature of the thing, caused the obscurity.

27. *Freedom.*—First, then, it is carefully to be remembered, that freedom consists in the dependence of the existence or not existence of any action upon our volition of it, and not in the dependence of any action, or its contrary, on our preference. A man standing on a cliff is at liberty to leap twenty yards downwards into the sea, not because he has a power to do the contrary action, which is to leap twenty yards upwards, for that he cannot do; but he is therefore free, because he has a power to leap or not to leap. But if a greater force than his either holds him fast, or tumbles him down, he is no longer free in that case: because the doing or forbearance of that particular action is no longer in his power. He that is a close prisoner in a room twenty-feet square, being at the north side of his chamber, is at liberty to walk twenty feet southward, because he can walk or not walk it; but is not at the same time at liberty to do the contrary; *i. e.*, to walk twenty feet northward.

In this, then, consists freedom, *viz.*, in our being able to act, or not to act, according as we shall choose or will.

28. *Volition what.*— [Secondly. We must remember that volition, or willing, is an act of the mind directing its thought to the production of any action, and thereby exerting its power to produce it. To avoid multiplying of words, I would crave leave here, under the word “action,” to comprehend the forbearance, too, of any action proposed; sitting still, or holding one’s peace, when walking or speaking are proposed, though mere forbearances, requiring as much the determination of the will, and being often as weighty in their consequences, as the contrary actions, may, on that consideration, well enough pass for actions too: but this I say that I may not be mistaken, if for brevity’s sake I speak thus.

29. *What determines the will.*— Thirdly. The will being nothing but a power in the mind to direct the operative faculties of a man to motion or rest, as far as they depend on such direction; to the question, “What is it determines the will?” the true and proper answer is, The mind. For that which determines the general power of directing to this or that particular direction, is nothing but the agent itself exercising the power it has that particular way. If this answer satisfies not, it is plain the meaning of the question, “What determines the will?” is this, “What moves the mind in every particular instance to determine its general power of directing to this or that particular motion or rest?” And to this I answer, The motive for continuing in the same state or action is only the present satisfaction in it; the motive to change is always some uneasiness: nothing setting us upon the change of state, or upon any new action, but some uneasiness. This is the great motive that works on the mind to put it upon action, which for shortness’ sake we will call

“determining of the will;” which I shall more at large explain.

30. *Will and desire must not be confounded.*—But, in the way to it, it will be necessary to premise, that though I have above endeavoured to express the act of volition by “choosing, preferring,” and the like terms, that signify desire as well as volition, for want of other words to mark that act of the mind whose proper name is “willing” or “volition;” yet it being a very simple act, whosoever desires to understand what it is, will better find it by reflecting on his own mind, and observing what it does when it wills, than by any variety of articulate sounds whatsoever. This caution of being careful not to be misled by expressions that do not enough keep up the difference between the will and several acts of the mind that are quite distinct from it, I think the more necessary, because I find the will often confounded with several of the affections, especially desire; and one put for the other, and that by men who would not willingly be thought not to have had very distinct notions of things, and not to have writ very clearly about them. This, I imagine, has been no small occasion of obscurity and mistake in this matter, and therefore is as much as may be to be avoided; for he that shall turn his thoughts inwards upon what passes in his mind when he wills, shall see that the will or power of volition is conversant about nothing but our own actions; terminates there; and reaches no further; and that volition is nothing but that particular determination of the mind whereby, barely by a thought, the mind endeavours to give rise, continuation, or stop to any action which it takes to be in its power. This, well considered, plainly shows that the will is per-

fectly distinguished from desire, which in the very same action may have a quite contrary tendency from that which our will sets us upon. A man, whom I cannot deny, may oblige me to use persuasions to another, which, at the present time I am speaking, I may wish may not prevail on him. In this case, it is plain the will and desire run counter. I will the action that tends one way, whilst my desire tends another, and that the direct contrary way. A man who, by a violent fit of the gout in his limbs, finds a dozing in his head or a want of appetite in his stomach removed, desires to be eased too of the pain of his feet or hands (for wherever there is pain there is a desire to be rid of it, though yet, whilst he apprehends that the removal of the pain may translate the noxious humour to a more vital part, his will is never determined to any one action that may serve to remove this pain. Whence it is evident that desiring and willing are two distinct acts of the mind, and consequently that the will, which is but the power of volition, is much more distinct from desire.

31. *Uneasiness determines the will.*—To return, then, to the inquiry, “What is it that determines the will in regard to our actions?” And that upon second thoughts I am apt to imagine, is not, as is generally supposed, the greater good in view, but some (and, for the most part, the most pressing) uneasiness a man is at present under. This is that which successively determines the will, and sets us upon those actions we perform. This uneasiness we may call, as it is, “desire;” which is an uneasiness of the mind for want of some absent good. All pain of the body, of what sort soever, and disquiet of the mind, is uneasiness; and with this is always joined desire

equal to the pain or uneasiness felt, and is scarce distinguishable from it. For, desire being nothing but an uneasiness in the want of an absent good, in reference to any pain felt, ease is that absent good; and till that ease be attained, we may call it desire, nobody feeling pain that he wishes not to be eased of with a desire equal to that pain, and inseparable from it. Besides this desire of ease from pain, there is another of absent positive good; and here also the desire and uneasiness is equal. As much as we desire any absent good, so much are we in pain for it. But here all absent good does not, according to the greatness it has, or is acknowledged to have, cause pain equal to that greatness; as all pain causes desire equal to itself: because the absence of good is not always a pain, as the presence of pain is. And therefore absent good may be looked on and considered without desire. But so much as there is any where of desire, so much there is of uneasiness.

32. *Desire is uneasiness.*—That desire is a state of uneasiness, every one who reflects on himself will quickly find. Who is there that has not felt in desire what the wise man says of hope (which is not much different from it), that it being deferred makes the heart sick? and that still proportionable to the greatness of the desire, which sometimes raises the uneasiness to that pitch that it makes people cry out, “Give me children,” give me the thing desired, “or I die?” Life itself, and all its enjoyments, is a burden cannot be borne under the lasting and unremoved pressure of such an uneasiness.

33. *The uneasiness of desire determines the will.*—Good and evil, present and absent, it is true, work upon the mind; but that which immediately deter-

mines the will, from time to time, to every voluntary action, is the uneasiness of desire, fixed on some absent good, either negative, as indolence to one in pain, or positive, as enjoyment of pleasure. That it is this uneasiness that determines the will to the successive voluntary actions whereof the greatest part of our lives is made up, and by which we are conducted through different courses to different ends, I shall endeavour to show both from experience and the reason of the thing.

34. *This the spring of action.*—When a man is perfectly content with the state he is in, which is when he is perfectly without any uneasiness, what industry, what action, what will is there left, but to continue in it? Of this every man's observation will satisfy him. And thus we see our all-wise Maker, suitable to our constitution and frame, and knowing what it is that determines the will, has put into man the uneasiness of hunger and thirst, and other natural desires, that return at their seasons, to move and determine their wills, for the preservation of themselves and the continuation of their species. For I think we may conclude, that if the bare contemplation of these good ends to which we are carried by these several uneasinesses, had been sufficient to determine the will, and set us on work, we should have had none of these natural pains, and perhaps in this world little or no pain at all. "It is better to marry than to burn," says St. Paul; where we may see what it is that chiefly drives men into the enjoyments of a conjugal life. A little burning felt pushes us more powerfully than greater pleasures in prospect draw or allure.

35. *The greatest positive good determines not the will, but uneasiness.*—It seems so established and set-

bled a maxim, by the general consent of all mankind, that good, the greater good, determines the will, that I do not at all wonder that, when I first published my thoughts on this subject, I took it for granted; and I imagine, that by a great many I shall be thought more excusable for having then done so, than that now I have ventured to recede from so received an opinion. But yet upon a stricter inquiry, I am forced to conclude that good, the greater good, though apprehended and acknowledged to be so, does not determine the will until our desire, raised proportionably to it, makes us uneasy in the want of it. Convince a man never so much that plenty has its advantages over poverty; make him see and own that the handsome conveniences of life are better than nasty penury; yet as long as he is content with the latter, and finds no uneasiness in it, he moves not; his will never is determined to any action that shall bring him out of it. Let a man be ever so well persuaded of the advantages of virtue, that it is as necessary to a man who has any great aims in this world or hopes in the next, as food to life: yet till he “hungers or thirsts after righteousness,” till he feels an uneasiness in the want of it, his will will not be determined to any action in pursuit of this confessed greater good; but any other uneasiness he feels in himself shall take place and carry his will to other actions. On the other side, let a drunkard see that his health decays, his estate wastes; discredit and diseases, and the want of all things, even of his beloved drink, attends him in the course he follows: yet the returns of uneasiness to miss his companions, the habitual thirst after his cups, at the usual time, drives him to the tavern, though he has in his view the loss of health and plenty, and

perhaps the joys of another life: the least of which is no inconsiderable good, but such as he confesses is far greater than the tickling of his palate with a glass of wine, or the idle chat of a soaking club. It is not for want of viewing the greater good; for he sees and acknowledges it, and in the intervals of his drinking hours will take resolutions to pursue the greater good; but when the uneasiness to miss his accustomed delight returns, the greater acknowledged good loses its hold, and the present uneasiness determines the will to the accustomed action; which thereby gets stronger footing to prevail against the next occasion, though he at the same time makes secret promises to himself that he will do so no more; this is the last time he will act against the attainment of those greater goods. And thus he is, from time to time, in the state of that unhappy complainer, *Video meliora proboque, deteriora sequor*: which sentence, allowed for true, and made good by constant experience, may this (and possibly no other) way be easily made intelligible.

36. *Because the removal of uneasiness is the first step to happiness.*—If we inquire into the reason of what experience makes so evident in fact, and examine why it is uneasiness alone operates on the will, and determines it in its choice, we shall find that we being capable but of one determination of the will to one action at once, the present uneasiness that we are under does naturally determine the will in order to that happiness which we all aim at in all our actions: forasmuch as whilst we are under any uneasiness, we cannot apprehend ourselves happy, or in the way to it; pain and uneasiness being by every one concluded and felt to be inconsistent with happiness, spoiling the

relish even of those good things which we have; a little pain serving to mar all the pleasure we rejoiced in. And therefore that which of course determines the choice of our will to the next action, will always be the removing of pain, as long as we have any left, as the first necessary step towards happiness.

37. *Because uneasiness alone is present.*— Another reason why it is uneasiness alone determines the will is this: because that alone is present, and it is against the nature of things that what is absent should operate where it is not. It may be said, that absent good may, by contemplation, be brought home to the mind, and made present. The idea of it indeed may be in the mind, and viewed as present there; but nothing will be in the mind as a present good, able to counterbalance the removal of any uneasiness which we are under, till it raises our desire, and the uneasiness of that has the prevalency in determining the will. Till then the idea in the mind of whatever good, is there only like other ideas, the object of bare unactive speculation, but operates not on the will, nor sets us on work: the reason whereof I shall show by and by. How many are to be found that have had lively representations set before their minds of the unspeakable joys of heaven, which they acknowledge both possible and probable too, who yet would be content to take up with their happiness here! and so the prevailing uneasiness of their desires, let loose after the enjoyments of this life, take their turns in the determining their wills, and all that while they take not one step, are not one jot moved, towards the good things of another life, considered as ever so great.

38. *Because all who allow the joys of heaven possible, pursue them not.*— Were the will determined by

the views of good, as it appears in contemplation greater or less to the understanding, which is the state of all absent good, and that which in the received opinion the will is supposed to move to and to be moved by, I do not see how it could ever get loose from the infinite eternal joys of heaven, once proposed and considered as possible. For all absent good, by which alone, barely proposed and coming in view, the will is thought to be determined, and so to set us on action, being only possible, but not infallibly certain, it is unavoidable that the infinitely greater possible good should regularly and constantly determine the will in all the successive actions it directs; and then we should keep constantly and steadily in our course towards heaven, without ever standing still, or directing our actions to any other end: the eternal condition of a future state infinitely outweighing the expectation of riches, or honour, or any other worldly pleasure which we can propose to ourselves, though we should grant these the more probable to be attained: for nothing future is yet in possession, and so the expectation even of these may deceive us. If it were so, that the greater good in view determines the will, so great a good once proposed could not but seize the will, and hold it fast to the pursuit of this infinitely greatest good, without ever letting it go again: for the will having a power over and directing the thoughts, as well as other actions, would, if it were so, hold the contemplation of the mind fixed to that good.

But any great uneasiness is never neglected.— This would be the state of the mind, and regular tendency of the will in all its determinations, were it determined by that which is considered and in view the greater good; but that it is not so, is visible in experience;

the infinitely greatest confessed good being often neglected, to satisfy the successive uneasiness of our desires pursuing trifles. But though the greatest allowed, even everlasting unspeakable, good, which has sometimes moved and affected the mind, does not steadfastly hold the will, yet we see any very great and prevailing uneasiness, having once laid hold on the will, let it not go; by which we may be convinced what it is that determines the will. Thus any vehement pain of the body, the ungovernable passion of a man violently in love, or the impatient desire of revenge, keeps the will steady and intent: and the will, thus determined, never lets the understanding lay by the object, but all the thoughts of the mind and powers of the body are uninterruptedly employed that way, by the determination of the will, influenced by that topping uneasiness as long as it lasts: whereby it seems to me evident, that the will, or power of setting us upon one action in preference to all others, is determined in us by uneasiness: and whether this be not so, I desire every one to observe in himself.

39. *Desire accompanies all uneasiness.*—I have hitherto chiefly instanced in the uneasiness of desire, as that which determines the will; because that is the chief and most sensible; and the will seldom orders any action, nor is there any voluntary action performed, without some desire accompanying it; which, I think, is the reason why the will and desire are so often confounded. But yet we are not to look upon the uneasiness which makes up, or at least accompanies, most of the other passions, as wholly excluded in the case. Aversion, fear, anger, envy, shame, &c., have each their uneasiness too, and thereby influence the will. These passions are scarce any of them in life

and practice simple and alone, and wholly unmixed with others; though usually, in discourse and contemplation, that carries the name which operates strongest and appears most in the present state of the mind. Nay, there is, I think, scarce any of the passions to be found without desire joined with it. I am sure, wherever there is uneasiness, there is desire: for we constantly desire happiness; and whatever we feel of uneasiness, so much, it is certain, we want of happiness, even in our own opinion, let our state and condition otherwise be what it will. Besides, the present moment not being our eternity, whatever our enjoyment be, we look beyond the present, and desire goes with our foresight, and that still carries the will with it. So that even in joy itself, that which keeps up the action whereon the enjoyment depends, is the desire to continue it, and fear to lose it; and whenever a greater uneasiness than that takes place in the mind, the will presently is by that determined to some new action, and the present delight neglected.

40. *The most pressing uneasiness naturally determines the will.*—But we being in this world beset with sundry uneasinesses, distracted with different desires, the next inquiry naturally will be, which of them has the precedence in determining the will to the next action? And to that the answer is, That, ordinarily, which is the most pressing of those that are judged capable of being then removed. For the will being the power of directing our operative faculties to some action for some end, cannot at any time be moved towards what is judged at that time unattainable: that would be to suppose an intelligent being designedly to act for an end, only to lose its labour; for so it is to act for what is judged not attain-

able: and therefore very great uneasinesses move not the will when they are judged not capable of a cure: they, in that case, put us not upon endeavours. But these set apart, the most important and urgent uneasiness we at that time feel, is that which ordinarily determines the will successively in that train of voluntary actions which make up our lives. The greatest present uneasiness is the spur to action that is constantly most felt, and for the most part determines the will in its choice of the next action. For this we must carry along with us, that the proper and only object of the will is some action of ours, and nothing else: for we producing nothing by our willing it, but some action in our power, it is there the will terminates, and reaches no farther.

41. *All desire happiness.*—If it be farther asked, what it is moves desire? I answer, Happiness, and that alone. “Happiness” and “misery” are the names of two extremes, the utmost bounds whereof we know not: it is what “eye hath not seen, ear hath not heard, nor hath it entered into the heart of man to conceive.” But of some degrees of both we have very lively impressions, made by several instances of delight and joy on the one side, and torment and sorrow on the other; which, for shortness’ sake, I shall comprehend under the names of “pleasure” and “pain,” there being pleasure and pain of the mind as well as the body: “With him is fulness of joy, and pleasure for evermore:” or, to speak truly, they are all of the mind; though some have their rise in the mind from thought, others in the body from certain modifications of motion.

42. *Happiness, what.*—Happiness, then, in its full extent, is the utmost pleasure we are capable of, and

misery the utmost pain ; and the lowest degree of what can be called "happiness" is so much ease from all pain, and so much present pleasure, as without which any one cannot be content. Now, because pleasure and pain are produced in us by the operation of certain objects either on our minds or our bodies, and in different degrees, therefore what has an aptness to produce pleasure in us is that we call "good," and what is apt to produce pain in us we call "evil;" for no other reason but for its aptness to produce pleasure and pain in us, wherein consists our happiness and misery. Farther though what is apt to produce any degree of pleasure be in itself good, and what is apt to produce any degree of pain be evil, yet it often happens that we do not call it so when it comes in competition with a greater of its sort ; because when they come in competition, the degrees also of pleasure and pain have justly a preference. So that if we will rightly estimate what we call "good" and "evil," we shall find it lies much in comparison ; for the cause of every less degree of pain, as well as every greater degree of pleasure, has the nature of good and *vice versa*.

43. *What good is desired, what not.*— Though this be that which is called "good" and "evil," and all good be the proper object of desire in general, yet all good, even seen and confessed to be so, does not necessarily move every particular man's desire ; but only that part, or so much of it, as is considered and taken to make a necessary part of his happiness. All other good, however great in reality or appearance, excites not a man's desires, who looks not on it to make a part of that happiness wherewith he, in his present thoughts, can satisfy himself. Happiness,

under this view, every one constantly pursues, and desires what makes any part of it: other things acknowledged to be good he can look upon without desire; pass by, and be content without. There is nobody, I think, so senseless as to deny that there is pleasure in knowledge; and for the pleasures of sense, they have too many followers to let it be questioned whether men are taken with them or no. Now, let one man place his satisfaction in sensual pleasures, another in the delight of knowledge: though each of them cannot but confess there is great pleasure in what the other pursues, yet neither of them making the other's delight a part of his happiness, their desires are not moved, but each is satisfied without what the other enjoys; and so his will is not determined to the pursuit of it. But yet, as soon as the studious man's hunger and thirst make him uneasy, he whose will was never determined to any pursuit of good cheer, poignant sauces, delicious wine, by the pleasant taste he has found in them, is, by the uneasiness of hunger and thirst, presently determined to eating and drinking, though possibly with great indifferency, what wholesome food comes in his way. And on the other side, the epicure buckles to study when shame, or the desire to recommend himself to his mistress, shall make him uneasy in the want of any sort of knowledge. Thus how much soever men are in earnest and constant in pursuit of happiness, yet they may have a clear view of good, great and confessed good, without being concerned for it, or moved by it, if they think they can make up their happiness without it. Though as to pain, *that* they are always concerned for; they can feel no uneasiness without being moved. And therefore, being uneasy in the want of whatever is judged neces-

sary to their happiness, as soon as any good appears to make a part of their portion of happiness, they begin to desire it.

44. *Why the greatest good is not always desired.*
 — This, I think, any one may observe in himself and others, that the greater visible good does not always raise men's desires in proportion to the greatness it appears and is acknowledged to have; though every little trouble moves us, and sets us on work to get rid of it: the reason whereof is evident from the nature of our happiness and misery itself. All present pain, whatever it be, makes a part of our present misery; but all absent good does not at any time make a necessary part of our present happiness, nor the absence of it make a part of our misery: if it did, we should be constantly and infinitely miserable; there being infinite degrees of happiness which are not in our possession. All uneasiness therefore being removed, a moderate portion of good serves at present to content men; and a few degrees of pleasure in a succession of ordinary enjoyments make up a happiness wherein they can be satisfied. If this were not so, there could be no room for those indifferent and visibly trifling actions to which our wills are so often determined, and wherein we voluntarily waste so much of our lives; which remissness could by no means consist with a constant determination of will or desire to the greatest apparent good. That this is so, I think few people need go far from home to be convinced. And, indeed, in this life there are not many whose happiness reaches so far as to afford them a constant train of moderate, mean pleasures, without any mixture of uneasiness; and yet they could be content to stay here for ever; though they cannot deny but that it is pos-

sible there may be a state of eternal, durable joys after this life, far surpassing all the good that is to be found here. Nay, they cannot but see that it is more possible than the attainment and continuation of that pittance of honour, riches, or pleasure which they pursue, and for which they neglect that eternal state; but yet, in full view of this difference, satisfied of the possibility of a perfect, secure, and lasting happiness in a future state, and under a clear conviction that it is not to be had here whilst they bound their happiness within some little enjoyment or aim of this life, and exclude the joys of heaven from making any necessary part of it, their desires are not moved by this greater apparent good, nor their wills determined to any action or endeavour for its attainment.

45. *Why, not being desired, it moves not the will.*
— The ordinary necessities of our lives fill a great part of them with the uneasinesses of hunger, thirst, heat, cold, weariness with labour, and sleepiness, in their constant returns, &c., to which if, besides accidental harms, we add the fantastical uneasiness (as itch after honour, power, or riches, &c.) which acquired habits by fashion, example, and education have settled in us, and a thousand other irregular desires which custom has made natural to us, we shall find that a very little part of our life is so vacant from these uneasinesses as to leave us free to the attraction of remoter absent good. We are seldom at ease, and free enough from the solicitation of our natural or adopted desires, but a constant succession of uneasinesses, out of that stock which natural wants or acquired habits have heaped up, take the will in their turns; and no sooner is one action despatched, which by such a determination of the will we are set upon, but

another uneasiness is ready to set us on work. For the removing of the pains we feel, and are at present pressed with, being the getting out of misery, and consequently the first thing to be done in order to happiness, absent good, though thought on, confessed, and appearing to be good, not making any part of this unhappiness, in its absence is justled out, to make way for the removal of those uneasinesses we feel, till due and repeated contemplation has brought it nearer to our mind, given some relish of it, and raised in us some desire; which, then beginning to make a part of our present uneasiness, stands upon fair terms with the rest to be satisfied, and so, according to its greatness and pressure, comes in its turn to determine the will.

46. *Due consideration raises desire.*—And thus, by a due consideration, and examining any good proposed, it is in our power to raise our desires in a due proportion to the value of that good whereby, in its turn and place, it may come to work upon the will, and be pursued. For good, though appearing and allowed ever so great, yet till it has raised desires in our minds, and thereby made us uneasy in its want, it reaches not our wills, we are not within the sphere of its activity; our wills being under the determination only of those uneasinesses which are present to us, which (whilst we have any) are always soliciting, and ready at hand to give the will its next determination; the balancing, when there is any in the mind, being only, which desire shall be next satisfied, which uneasiness first removed. Whereby it comes to pass, that as long as any uneasiness, any desire, remains in our mind, there is no room for good, barely as such, to come at the will, or at all to determine it. Because,

as has been said, the first step in our endeavours after happiness being to get wholly out of the confines of misery and to feel no part of it, the will can be at leisure for nothing else till every uneasiness we feel be perfectly removed; which, in the multitude of wants and desires we are beset with in this imperfect state, we are not like to be ever freed from in this world.

47. *The power to suspend the prosecution of any desire, makes way for consideration.*—There being in us a great many uneasinesses always soliciting, and ready to determine, the will, it is natural, as I have said, that the greatest and most pressing should determine the will to the next action; and so it does for the most part, but not always. For the mind having in most cases, as is evident in experience, a power to suspend the execution and satisfaction of any of its desires, and so all, one after another is at liberty to consider the objects of them, examine them on all sides, and weigh them with others. In this lies the liberty man has; and from the not using of it right, comes all that variety of mistakes, errors, and faults which we run into in the conduct of our lives, and our endeavours after happiness; whilst we precipitate the determination of our wills, and engage too soon before due examination. To prevent this, we have a power to suspend the prosecution of this or that desire, as every one daily may experiment in himself. This seems to me the source of all liberty; in this seems to consist that which is (as I think improperly called “free-will.” For during this suspension of any desire, before the will be determined to action, and the action (which follows that determination) done, we have opportunity to examine, view, and judge of the

good or evil of what we are going to do; and when upon due examination we have judged, we have done our duty, all that we can or ought to do in pursuit of our happiness; and it is not a fault but a perfection of our nature to desire, will and act, according to the last result of a fair examination.

48. *To be determined by our own judgment, is no restraint to liberty.*—This is so far from being a restraint or diminution of freedom, that it is the very improvement and benefit of it; it is not an abridgment, it is the end and use, of our liberty; and the farther we are removed from such a determination, the nearer we are to misery and slavery. A perfect indifferency in the mind, not determinable by its last judgment of the good or evil that is thought to attend its choice, would be so far from being an advantage and excellency of an intellectual nature, that it would be as great an imperfection, as the want of indifferency to act or not to act till determined by the will, would be an imperfection on the other side. A man is at liberty to lift up his hand to his head, or let it rest quiet: he is perfectly indifferent in either; and it would be an imperfection in him if he wanted that power, if he were deprived of that indifferency. But it would be as great an imperfection, if he had the same indifferency, whether he would prefer the lifting up his hand, or its remaining in rest, when it would save his head or eyes from a blow he sees coming: it is as much a perfection that desire, or the power of preferring, should be determined by good, as that the power of acting should be determined by the will; and the certainer such determination is, the greater is the perfection. Nay, were we determined by any thing but the last result of our own minds judging of the good

or evil of any action, we were not free; [the very end of our freedom being, that we may attain the good we choose. And therefore every man is put under a necessity by his constitution, as an intelligent being, to be determined in willing, by his own thought and judgment, what is best for him to do: else he would be under the determination of some other than himself, which is want of liberty. And to deny that a man's will, in every determination, follows his own judgment, is to say, that a man wills and acts for an end that he would not have, at the time that he wills and acts for it. For if he prefers it in his present thoughts before any other, it is plain he then thinks better of it, and would have it before any other, unless he can have and not have it, will and not will it, at the same time; a contradiction too manifest to be admitted.]

49. *The freest agents are so determined.*—If we look upon those superior beings above us who enjoy perfect happiness, we shall have reason to judge, that they are more steadily determined in their choice of good than we; and yet we have no reason to think they are less happy or less free than we are. And if it were fit for such poor finite creatures as we are to pronounce what infinite wisdom and goodness could do, I think we might say that God himself cannot choose what is not good; the freedom of the Almighty hinders not his being determined by what is best.

50. *A constant determination to a pursuit of happiness, no abridgment of liberty.*—But, to give a right view of this mistaken part of liberty, let me ask, Would any one be a changeling because he is less determined by wise considerations than a wise man? Is it worth the name of freedom to be at liberty to play

the fool, and draw shame and misery upon a man's self? If to break loose from the conduct of reason, and to want that restraint of examination and judgment which keeps us from choosing or doing the worse, be liberty, true liberty, madmen and fools are the only freemen: but yet, I think, nobody would choose to be mad for the sake of such liberty, but he that is mad already. The constant desire of happiness, and the constraint it puts upon us to act for it, nobody, I think, accounts an abridgment of liberty, or at least an abridgment of liberty to be complained of. God Almighty himself is under the necessity of being happy; and the more any intelligent being is so, the nearer is its approach to infinite perfection and happiness. That in this state of ignorance we short-sighted creatures might not mistake true felicity, we are endowed with a power to suspend any particular desire, and keep it from determining the will, and engaging us in action. This is *standing still*, where we are not sufficiently assured of the way: examination is *consulting a guide*. The determination of the will upon inquiry, is *following the direction of that guide*; and he that has a power to act, or not to act, according as such determination directs, is a free agent; such determination abridges not that power wherein liberty consists. He that has his chains knocked off, and the prison doors set open to him, is perfectly at liberty, because he may either go or stay, as he best likes; though his preference be determined to stay, by the darkness of the night, or illness of the weather, or want of other lodging. He ceases not to be free; though the desire of some convenience, to be had there, absolutely, determines his preference, and makes him stay in his prison.

51. *The necessity of pursuing true happiness, the foundation of all liberty.*—As therefore the highest perfection of intellectual nature lies in a careful and constant pursuit of true and solid happiness, so the care of ourselves, that we mistake not imaginary for real happiness, is the necessary foundation of our liberty. The stronger ties we have to an unalterable pursuit of happiness in general, which is our greatest good, and which, as such, our desires always follow, the more are we free from any necessary determination of our will, to any particular action, and from a necessary compliance with our desire set upon any particular and then appearing preferable good, till we have duly examined whether it has a tendency to or be inconsistent with our real happiness: and therefore till we are as much informed upon this inquiry as the weight of the matter and the nature of the case demands, we are, by the necessity of preferring and pursuing true happiness as our greatest good, obliged to suspend the satisfaction of our desires in particular cases.

52. *The reason of it.*—This is the hinge on which turns the liberty of intellectual beings in their constant endeavours after and a steady prosecution of true felicity, that they can suspend this prosecution in particular cases till they have looked before them, and informed themselves whether that particular thing which is then proposed or desired lie in the way to their main end, and make a real part of that which is their greatest good; for the inclination and tendency of their nature to happiness is an obligation and motive to them, to take care not to mistake or miss it; and so necessarily puts them upon caution, deliberation, and wariness in the direction of their particular

actions, which are the means to obtain it. Whatever necessity determines to the pursuit of real bliss, the same necessity with the same force, establishes suspense, deliberation, and scrutiny of each successive desire, whether the satisfaction of it does not interfere with our true happiness, and mislead us from it. This, as seems to me, is the great privilege of finite intellectual beings; and I desire it may be well considered, whether the great inlet and exercise of all the liberty men have, are capable of, or can be useful to them, and that whereon depends the turn of their actions, does not lie in this, that they can suspend their desires, and stop them from determining their wills to any action, till they have duly and fairly examined the good and evil of it, as far forth as the weight of the thing requires. This we are able to do; and when we have done it, we have done our duty, and all that is in our power, and indeed all that needs. For, since the will supposes knowledge to guide its choice, all that we can do is to hold our wills undetermined till we have examined the good and evil of what we desire. What follows after that, follows in a chain of consequences linked one to another, all depending on the last determination of the judgment; which, whether it shall be upon an hasty and precipitate view, or upon a due and mature examination, is in our power; experience showing us, that in most cases we are able to suspend the present satisfaction of any desire.

53. *Government of our passions, the right improvement of liberty.*— But if any extreme disturbance (as sometimes it happens) possesses our whole mind, as when the pain of the rack, an impetuous uneasiness, as of love, anger, or any other violent passion, running away with us, allows us not the liberty of thought, and

we are not masters enough of our own minds to consider thoroughly and examine fairly; God, who knows our frailty, pities our weakness, and requires of us no more than we are able to do, and sees what was and what was not in our power, will judge as a kind and merciful Father. But the forbearance of a too hasty compliance with our desires, the moderation and restraint of our passions, so that our understandings may be free to examine, and reason unbiassed give its judgment, being that whereon a right direction of our conduct to true happiness depends; it is in this we should employ our chief care and endeavours. In this we should take pains to suit the relish of our minds to the true intrinsic good or ill that is in things, and not permit an allowed or supposed possible great and weighty good to slip out of our thoughts without leaving any relish, any desire of itself there, till, by a due consideration of its true worth, we have formed appetites in our minds suitable to it, and made ourselves uneasy in the want of it, or in the fear of losing it. And how much this is in every one's power, by making resolutions to himself such as he may keep, is easy for every one to try. Nor let any one say, he cannot govern his passions, nor hinder them from breaking out, and carrying him into action; for what he can do before a prince, or a great man, he can do alone, or in the presence of God, if he will.

54. *How men come to pursue different courses.*—From what has been said, it is easy to give an account how it comes to pass, that though all men desire happiness, yet their wills carry them so contrarily, and consequently some of them to what is evil. And to this I say, that the various and contrary choices that men make in the world do not argue that they do not

all pursue good, but that the same thing is not good to every man alike. This variety of pursuits shows that every one does not place his happiness in the same thing, or choose the same way to it. Were all the concerns of man terminated in this life, why one followed study and knowledge, and another hawking and hunting; why one chose luxury and debauchery, and another sobriety and riches; would not be because every one of these did not aim at his own happiness, but because their happiness was placed in different things. And therefore it was a right answer of the physician to his patient that had sore eyes: "If you have more pleasure in the taste of wine than in the use of your sight, wine is good for you; but if the pleasure of seeing be greater to you than that of drinking, wine is naught."

55. The mind has a different relish, as well as the palate; and you will as fruitlessly endeavour to delight all men with riches or glory (which yet some men place their happiness in), as you would to satisfy all men's hunger with cheese or lobsters; which, though very agreeable and delicious fare to some, are to others extremely nauseous and offensive: and many persons would with reason prefer the griping of an hungry belly to those dishes which are a feast to others. Hence it was, I think, that the philosophers of old did in vain inquire, whether *summum bonum* consisted in riches, or bodily delights, or virtue, or contemplation? And they might have as reasonably disputed, whether the best relish were to be found in apples, plums, or nuts; and have divided themselves into sects upon it. For as pleasant tastes depend not on the things themselves, but their agreeableness to this or that particular palate, wherein there is great variety; so the

greatest happiness consists in the having those things which produce the greatest pleasure and in the absence of those which cause any disturbance, any pain. Now, these to different men are very different things. If therefore men in this life only have hope, if in this life only they can enjoy, it is not strange nor unreasonable that they should seek their happiness by avoiding all things that disease them here, and by pursuing all that delight them; wherein it will be no wonder to find variety and difference. For if there be no prospect beyond the grave, the inference is certainly right, "Let us eat and drink," let us enjoy what we delight in, "for to-morrow we shall die." This, I think, may serve to show us the reason, why, though all men's desires tend to happiness, yet they are not moved by the same object. Men may choose different things, and yet all choose right, supposing them only like a company of poor insects, whereof some are bees, delighted with flowers and their sweetness; others beetles, delighted with other kinds of viands; which having enjoyed for a season, they would cease to be, and exist no more for ever.

56. *How men come to choose ill.*— [These things, duly weighed, will give us, as I think, a clear view into the state of human liberty. Liberty, it is plain, consists in a power to do or not to do, to do or forbear doing, as we will. This cannot be denied. But this seeming to comprehend only the actions of a man consecutive to volition, it is farther inquired, whether he be at liberty to will or no? And to this it has been answered, that in most cases a man is not at liberty to forbear the act of volition; he must exert an act of his will, whereby the action proposed is made to exist, or not to exist. But yet there is a case wherein

a man is at liberty in respect of willing; and that is the choosing of a remote good as an end to be pursued. Here a man may suspend the act of his choice from being determined for or against the thing proposed, till he has examined whether it be really of a nature in itself and consequences to make him happy or not. For when he has once chosen it, and thereby it has become a part of his happiness, it raises desire; and that proportionably gives him uneasiness, which determines his will, and sets him at work in pursuit of his choice on all occasions that offer. And here we may see how it comes to pass, that a man may justly incur punishment, though it be certain that in all the particular actions that he wills, he does, and necessarily does, will that which he then judges to be good. For though his will be always determined by that which is judged good by his understanding, yet it excuses him not: because by a too hasty choice of his own making, he has imposed on himself wrong measures of good and evil; which, however false and fallacious, have the same influence on all his future conduct as if they were true and right. He has vitiated his own palate, and must be answerable to himself for the sickness and death that follows from it. The eternal law and nature of things must not be altered to comply with his ill-ordered choice. If the neglect or abuse of the liberty he had to examine what would really and truly make for his happiness, misleads him, the miscarriages that follow on it must be imputed to his own election. He had a power to suspend his determination: it was given him, that he might examine and take care of his own happiness, and look that he were not deceived. And he could never judge

that it was better to be deceived than not, in a matter of so great and near concernment.]

What has been said may also discover to us the reason why men in this world prefer different things, and pursue happiness by contrary courses. But yet, since men are always constant and in earnest in matters of happiness and misery, the question still remains, how men come often to prefer the worse to the better, and to choose that which, by their own confession, has made them miserable?

57. To account for the various and contrary ways men take, though all aim at being happy, we must consider whence the various uneasinesses that determine the will in the preference of each voluntary action, have their rise.

(I.) *From bodily pain.*—Some of them come from causes not in our power, such as are often the pains of the body from want, disease, or outward injuries, as the rack, &c., which, when present, and violent, operate for the most part forcibly on the will, and turn the courses of men's lives from virtue, piety, and religion, and what before they judged to lead to happiness; every one not endeavouring, or, [through disuse,] not being able, by the contemplation of remote and future good, to raise in himself desires of them strong enough to counterbalance the uneasiness he feels in those bodily torments, and to keep his will steady in the choice of those actions which lead to future happiness. A neighbouring country has been of late a tragical theatre, from which we might fetch instances, if there needed any, and the world did not in all countries and ages furnish examples enough, to confirm that received observation, *Necessitas cogit ad turpia*; and

therefore there is great reason for us to pray, "Lead us not into temptation."

(2.) *From wrong desires arising from wrong judgment.*—Other uneasinesses arise from our desires of absent good; which desires always bear proportion to and depend on the judgment we make, and the relish we have, of any absent good; in both which we are apt to be variously misled, and that by our own fault.

58. *Our judgment of present good or evil always right.*—In the first place I shall consider the wrong judgments men make of future good and evil, whereby their desires are misled. For as to present happiness and misery, when that alone comes in consideration, and the consequences are quite removed, a man never chooses amiss; he knows what best pleases him, and that he actually prefers. Things in their present enjoyment are what they seem; the apparent and real good are, in this case, always the same. For the pain or pleasure being just so great and no greater than it is felt, the present good or evil is really so much as it appears. And therefore were every action of ours concluded within itself, and drew no consequences after it, we should undoubtedly never err in our choice of good; we should always infallibly prefer the best. Were the pains of honest industry, and of starving with hunger and cold set together before us, nobody would be in doubt which to choose: were the satisfaction of a lust, and the joys of heaven, offered at once to any one's present possession, he would not balance or err in the determination of his choice.

59. But since our voluntary actions carry not all the happiness and misery that depend on them along with them in their present performance, but are the

precedent causes of good and evil, which they draw after them, and bring upon us when they themselves are past and cease to be; our desires look beyond our present enjoyments, and carry the mind out to absent good, according to the necessity which we think there is of it to the making or increase of our happiness. It is our opinion of such a necessity that gives it its attraction: without that, we are not moved by absent good. For in this narrow scantling of capacity which we are accustomed to and sensible of here, wherein we enjoy but one pleasure at once, which, when all uneasiness is away, is, whilst it lasts, sufficient to make us think ourselves happy; it is not all remote and even apparent good that affects us. Because the indolency and enjoyment we have sufficing for our present happiness, we desire not to venture the change: since we judge that we are happy already, being content, and that is enough. For who is content, is happy. But as soon as any new uneasiness comes in, this happiness is disturbed, and we are set afresh on work in the pursuit of happiness.

60. *From a wrong judgment of what makes a necessary part of their happiness.*—Their aptness therefore to conclude that they can be happy without it, is one great occasion that men often are not raised to the desire of the greatest absent good. For whilst such thoughts possess them, the joys of a future state move them not; they have little concern or uneasiness about them; and the will, free from the determination of such desires, is left to the pursuit of nearer satisfactions, and to the removal of those uneasinesses which it then feels in its want of and longings after them. Change but a man's view of these things; let him see that virtue and religion are necessary to his

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happiness; let him look into the future state of bliss or misery, and see their God the righteous Judge ready to “render to every man according to his deeds; to them who by patient continuance in well-doing seek for glory, and honour, and immortality, eternal life; but unto every soul that doth evil, indignation and wrath, tribulation and anguish;” to him, I say, who hath a prospect of the different state of perfect happiness or misery that attends all men after this life, depending on their behaviour here, the measures of good and evil that govern his choice are mightily changed. For, since nothing of pleasure and pain in this life can bear any proportion to the endless happiness or exquisite misery of an immortal soul hereafter, actions in his power will have their preference, not according to the transient pleasure or pain that accompanies or follows them here, but as they serve to secure that perfect durable happiness hereafter.]

61. *A more particular account of wrong judgments.*—But, to account more particularly for the misery that men often bring on themselves, notwithstanding that they do all in earnest pursue happiness, we must consider how things come to be represented to our desires under deceitful appearances; and that is by the judgment pronouncing wrongly concerning them. To see how far this reaches, and what are the causes of wrong judgment, we must remember that things are judged good or bad in a double sense.

First. That which is properly good or bad, is nothing but barely pleasurable or pain.

Secondly. But because not only present pleasure and pain, but that also which is apt by its efficacy or consequences to bring it upon us at a distance, is a proper object of our desires, and apt to move a creature that

has foresight; therefore, things also that draw after them pleasure and pain are considered as good and evil.

62. The wrong judgment that misleads us, and makes the will often fasten on the worst side, lies in misreporting upon the various comparisons of these. The wrong judgment I am here speaking of, is not what one man may think of the determination of another, but what every man himself must confess to be wrong. For, since I lay it for a certain ground, that every intelligent being really seeks happiness, [which consists in the enjoyment of pleasure, without any considerable mixture of uneasiness]; it is impossible any one should willingly put into his own draught any bitter ingredient, or leave out any thing in his power [that would tend to his satisfaction and the completing of his happiness], but only by wrong judgment. I shall not here speak of that mistake which is the consequence of invincible error, which scarce deserves the name of wrong judgment; but of that wrong judgment which every man himself must confess to be so.

63. *In comparing present and future.*—I, Therefore, as to present pleasure and pain, the mind, as has been said, never mistakes that which is really good or evil; that which is the greater pleasure or the greater pain is really just as it appears. But though present pleasure and pain show their difference and degrees so plainly as not to leave room for mistake, yet when we compare present pleasure or pain with future (which is usually the case in the most important determinations of the will), we often make wrong judgments of them, taking our measures of them in different positions of distance. Objects near our view are apt to be thought greater than those of a larger size

that are more remote: and so it is with pleasures and pains: the present is apt to carry it, and those at a distance have the disadvantage in the comparison. Thus most men, like spendthrift heirs are apt to judge a little in hand better than a great deal to come; and so, for small matters in possession, part with great ones in reversion. But that this is a wrong judgment, every one must allow, let his pleasure consist in whatever it will: since that which is future will certainly come to be present; and then, having the same advantage of nearness, will show itself in its full dimensions, and discover his wilful mistake who judged of it by unequal measures. Were the pleasure of drinking accompanied, the very moment a man takes off his glass, with that sick stomach and aching head which, in some men, are sure to follow not many hours after, I think nobody, whatever pleasure he had in his cups, would, on these conditions, ever let wine touch his lips; which yet he daily swallows, and the evil side comes to be chosen only by the fallacy of a little difference in time. But if pleasure or pain can be so lessened only by a few hours' removal, how much more will it be so, by a farther distance, to a man that will not by a right judgment do what time will, *i. e.*, bring it home to himself, and consider it as present, and there take its true dimensions! This is the way we usually impose on ourselves, in respect of bare pleasure and pain, or the true degrees of happiness or misery: the future loses its just proportion, and what is present obtains the preference as the greater. I mention not here the wrong judgment whereby the absent are not only lessened, but reduced to perfect nothing; when men enjoy what they can in present, and make sure of that, concluding amiss that no evil

will hence follow. For that lies not in comparing the greatness of future good and evil, which is that we are here speaking of; but in another sort of wrong judgment, which is concerning good or evil, as it is considered to be the cause and procurement of pleasure or pain that will follow from it.

64. *Causes of this.*—The cause of our judging amiss when we compare our present pleasure or pain with future, seems to me to be the weak and narrow constitution of our minds. We cannot well enjoy two pleasures at once, much less any pleasure almost whilst pain possesses us. The present pleasure, if it be not very languid and almost none at all, fills our narrow souls, and so takes up the whole mind that it scarce leaves any thought of things absent: or if among our pleasures there are some which are not strong enough to exclude the consideration of things at a distance, yet we have so great an abhorrence of pain that a little of it extinguishes all our pleasures: a little bitter mingled in our cup leaves no relish of the sweet. Hence it comes that, at any rate, we desire to be rid of the present evil, which we are apt to think nothing absent can equal; because under the present pain we find not ourselves capable of any the least degree of happiness.—Men's daily complaints are a loud proof of this: the pain that any one actually feels is still of all other the worst; and it is with anguish they cry out, "Any rather than this! nothing can be so intolerable as what I now suffer!" And therefore our whole endeavours and thoughts are intent to get rid of the present evil, before all things, as the first necessary condition to our happiness, let what will follow. Nothing, as we passionately think, can exceed or almost equal the uneasiness that sits so heavy upon us.

And because the abstinence from a present pleasure that offers itself is a pain, nay, oftentimes a very great one, the desire being inflamed by a near and tempting object; it is no wonder that that operates after the same manner pain does, and lessens in our thoughts what is future; and so forces us, as it were, blind-folded into its embraces.

65. [Add to this that absent good, or, which is the same thing, future pleasure, especially if of a sort which we are unacquainted with, seldom is able to counterbalance any uneasiness, either of pain or desire, which is present. For its greatness being no more than what shall be really tasted when enjoyed, men are apt enough to lessen that, to make it give place to any present desire; and conclude with themselves, that when it comes to trial it may possibly not answer the report or opinion that generally passes of it, they having often found that not only what others have magnified, but even what they themselves have enjoyed with great pleasure and delight at one time, has proved insipid or nauseous at another; and therefore they see nothing it for which they should forego a present enjoyment. But that this is a false way of judging when applied to the happiness of another life, they must confess, unless they will say, God cannot make those happy he designs to be so. For that being intended for a state of happiness, it must certainly be agreeable to every one's wish and desire: could we suppose their relishes as different there as they are here, yet the manna in heaven will suit every one's palate.] Thus much of the wrong judgment we make of present and future pleasure and pain, when they are compared together, and so the absent considered as future.

66. *In considering consequences of actions.*—II. As to things good or bad in their consequences, and by the aptness is in them to procure us good or evil in the future, we judge amiss several ways.

(1.) When we judge that so much evil does not really depend on them, as in truth there does.

(2.) When we judge, that though the consequence be of that moment, yet it is not of that certainty but that it may otherwise fall out or else by some means be avoided, as by industry, address, change, repentance, &c. That these are wrong ways of judging were easy to show, in every particular, if I would examine them at large singly: but I shall only mention this in general, viz., that it is a very wrong and irrational way of proceeding, to venture a greater good for a less upon uncertain guesses, and before a due examination be made, proportionable to the weightiness of the matter, and the concernment it is to us not to mistake. This, I think, every one must confess, especially if he considers the usual cause of this wrong judgment, whereof these following are some.

67. *Causes of this.*—I. *Ignorance:* He that judges without informing himself to the utmost that he is capable, cannot acquit himself of judging amiss.

II. *Inadvertency:* When a man overlooks even that which he does know. This is an affected and present ignorance, which misleads our judgments as much as the other. Judging is, as it were, balancing an account, and determining on which side the odds lie. If, therefore, either side be huddled up in haste, and several of the sums that should have gone into the reckoning be overlooked and left out, this precipitancy causes as wrong a judgment as if it were a perfect ignorance. That

which most commonly causes this, is the prevalency of some present pleasure or pain, heightened by our feeble passionate nature, most strongly wrought on by what is present. To check this precipitancy, our understanding and reason were given us, if we will make a right use of it to search and see, and then judge thereupon. [Without liberty, the understanding would be to no purpose: and without understanding, liberty (if it could be) would signify nothing. If a man sees what would do him good or harm, what would make him happy or miserable, without being able to move himself one step towards or from it, what is he the better for seeing? And he that is at liberty to ramble in perfect darkness, what is his liberty better than if he were driven up and down as a bubble by the force of the wind? The being acted by a blind impulse from without or from within, is little odds. The first, therefore, and great use of liberty, is to hinder blind precipitancy; the principal exercise of freedom is, to stand still, open the eyes, look about, and take a view of the consequence of what we are going to do, as much as the weight of the matter requires.] How much sloth and negligence, heat and passion, the prevalency of fashion, or acquired indispositions, do severally contribute on occasion to these wrong judgments, I shall not here farther inquire. [I shall only add one other false judgment, which I think necessary to mention, because, perhaps, it is little taken notice of though of great influence.

68. *Wrong judgment of what is necessary to our happiness.*—All men desire happiness, that is past doubt: but, as has been already observed, when they are rid of pain, they are apt to take up with any

pleasure at hand, or that custom has endeared to them, to rest satisfied in that; and so being happy, till some new desire, by making them uneasy, disturbs that happiness, and shows them that they are not so, they look no farther; nor is the will determined to any action in pursuit of any other known or apparent good. For since we find that we cannot enjoy all sorts of good, but one excludes another; we do not fix our desires on every apparent greater good, unless it be judged to be necessary to our happiness: if we think we can be happy without it, it moves us not. This is another occasion to men of judging wrong, when they take not that to be necessary to their happiness which really is so. This mistake misleads us both in the choice of the good we aim at, and very often in the means to it, when it is a remote good. But, which way ever it be, either by placing it where really it is not, or by neglecting the means as not necessary to it, when a man misses his great end, happiness, he will acknowledge he judged not right. That which contributes to this mistake, is the real or supposed unpleasantness of the actions, which are the way to this end; it seeming so preposterous a thing to men to make themselves unhappy in order to happiness, that they do not easily bring themselves to it.

69. *We can change the agreeableness or disagreeableness in things.*—The last inquiry, therefore, concerning this matter is, Whether it be in a man's power to change the pleasantness and unpleasantness that accompanies any sort of action? And, as to that, it is plain in many cases he can. Men may and should correct their palates, and give a relish to what either has, or they suppose has, none. The relish of the mind is as various as that of the body, and like that,

too, may be altered; and it is a mistake to think that men cannot change the displeasingness or indifferency that is in actions into pleasure and desire, if they will do but what is in their power. A due consideration will do it in some cases; and practice, application, and custom in most. Bread or tobacco may be neglected, where they are shown to be useful to health, because of an indifferency or disrelish to them; reason and consideration at first recommends and begins their trial, and use finds or custom makes them pleasant. That this is so in virtue, too, is very certain. Actions are pleasing or displeasing, either in themselves, or considered as a means to a greater and more desirable end. The eating of a well-seasoned dish, suited to a man's palate, may move the mind by the delight itself that accompanies the eating, without reference to any other end: to which the consideration of the pleasure there is in health and strength (to which that meat is subservient) may add a new gusto, able to make us swallow an ill-relished potion. In the latter of these, any action is rendered more or less pleasing only by the contemplation of the end, and the being more or less persuaded of its tendency to it, or necessary connection with it; but the pleasure of the action itself is best acquired or increased by use and practice. Trials often reconcile us to that which at a distance we looked on with aversion, and by repetitions wear us into a liking of what possibly in the first essay displeased us. Habits have powerful charms, and put so strong attractions of easiness and pleasure into what we accustom ourselves to, that we cannot forbear to do, or at least be easy in the omission of, actions which habitual practice has suited, and thereby recommends to us. Though this be very visible, and every one's

experience shows him he can do so; yet it is a part in the conduct of men towards their happiness neglected to a degree, that it will be possibly entertained as a paradox, if it be said, that men can make things or actions more or less pleasing to themselves; and thereby remedy that to which one may justly impute a great deal of their wandering. Fashion and the common opinion having settled wrong notions, and education and custom ill habits, the just values of things are misplaced, and the palates of men corrupted. Pains should be taken to rectify these; and contrary habits change our pleasures, and give a relish to that which is necessary or conducive to our happiness. This every one must confess he can do; and when happiness is lost, and misery overtakes him, he will confess he did amiss in neglecting it, and condemn himself for it: and I ask every one, whether he has not often done so?

70. *Preference of vice to virtue, a manifest wrong judgment.*— I shall not now enlarge any farther on the wrong judgments, and neglect of what is in their power, whereby men mislead themselves. This would make a volume, and is not my business. But whatever false notions or shameful neglect of what is in their power, may put men out of their way to happiness, and distract them, as we see, into so different courses of life, this yet is certain, that] morality, established upon its true foundations, cannot but determine the choice in any one that will but consider: and he that will not be so far a rational creature, as to reflect seriously upon infinite happiness and misery, must needs condemn himself as not making that use of his understanding he should. The rewards and punishments of another life, which the Almighty has estab-

lished as the enforcements of his law, are of weight enough to determine the choice against whatever pleasure or pain this life can show, when the eternal state is considered but in its bare possibility, which nobody can make any doubt of. He that will allow exquisite and endless happiness to be but the possible consequence of a good life here, and the contrary state the possible reward of a bad one, must own himself to judge very much amiss if he does not conclude, that a virtuous life with the certain expectation of everlasting bliss which may come, it to be preferred to a vicious one, with the fear of that dreadful state of misery which it is very possible may overtake the guilty, or at best the terrible uncertain hope of annihilation. This is evidently so, though the virtuous life here had nothing but pain, and the vicious continual pleasure: which yet is, for the most part, quite otherwise, and wicked men have not much the odds to brag of even in their present possession; nay, all things rightly considered, have, I think, even the worst part here. But when infinite happiness is put in one scale, against infinite misery in the other; if the worst that comes to the pious man if he mistakes, be the best that the wicked can attain to if he be in the right, who can without madness run the venture? Who in his wits would choose to come within a possibility of infinite misery, which if he miss, there is yet nothing to be got by that hazard! Whereas, on the other side, the sober man ventures nothing against infinite happiness to be got, if his expectation comes not to pass. If the good man be in the right, he is eternally happy; if he mistakes, he is not miserable, he feels nothing. On the other side, if the wicked man be in the right, he is not happy; if he mistakes, he is infinitely

miserable. Must it not be a most manifest wrong judgment, that does not presently see to which side, in this case, the preference is to be given? I have forbore to mention any thing of the certainty or probability of a future state, designing here to show the wrong judgment that any one must allow he makes upon his own principles, laid how he pleases, who prefers the short pleasures of a vicious life upon any consideration, whilst he knows, and cannot but be certain that a future life is at least possible.

71. *Recapitulation.*— [To conclude this inquiry into human liberty, which, as it stood before, I myself from the beginning fearing, and a very judicious friend of mine since the publication suspecting, to have some mistake in it, though he could not particularly show it me, I was put upon a stricter review of this chapter: wherein lighting upon a very easy and scarce observable slip I had made in putting one seemingly indifferent word for another, that discovery opened to me this present view, which here, in this second edition, I submit to the learned world, and which, in short, is this: Liberty is a power to act or not to act, according as the mind directs. A power to direct the operative faculties to motion or rest in particular instances, is that which we call the “will.” That which in the train of our voluntary actions determines the will to any change of operation, is some present uneasiness, which is, or at least is always accompanied with, that of desire. Desire is always moved by evil, to fly it; because a total freedom from pain always makes a necessary part of our happiness: but every good, nay every greater good, does not constantly move desire, because it may not make, or may not be taken to make, any necessary part of our hap-

piness. For all that we desire is only to be happy. But though this general desire of happiness operates constantly and invariably, yet the satisfaction of any particular desire can be suspended from determining the will to any subservient action, till we have maturely examined whether the particular apparent good, which we then desire, makes a part of our real happiness, or be consistent or inconsistent with it. The result of our judgment upon that examination, is what ultimately determines the man, who could not be free if his will were determined by any thing but his own desire, guided by his own judgment.] [I know that liberty by some is placed in an indifferency of the man, antecedent to the determination of his will. I wish they who lay so much stress on such an "antecedent indifferency," as they call it, had told us plainly whether this supposed indifferency be antecedent to the thought and judgment of the understanding, as well as to the decree of the will. For it is pretty hard to state it between them; *i. e.*, immediately after the judgment of the understanding, and before the determination of the will; because the determination of the will immediately follows the judgment of the understanding: and to place liberty in an indifferency antecedent to the thought and judgment of the understanding, seems to me to place liberty in a state of darkness, wherein we can neither see nor say any thing of it; at least it places it in a subject incapable of it, no agent being allowed capable of liberty, but in consequence of thought and judgment. I am not nice about phrases, and therefore consent to say, with those that love to speak so, that liberty is placed in indifferency; but it is an indifferency that remains after the judgment of the understanding; yea, even

after the determination of the will: and that is an indifferency not of the man; (for after he has once judged which is best, viz., to do, or forbear, he is no longer indifferent;) but an indifferency of the operative powers of the man, which remaining equally able to operate or to forbear operating after as before the decree of the will, are in a state which, if one pleases, may be called "indifferency;" and as far as this indifferency reaches, a man is free, and no farther. *V. g.*, I have the ability to move my hand, or to let it rest; that operative power is indifferent to move or not to move my hand: I am, then, in that respect perfectly free. My will determines that operative power to rest: I am yet free, because the indifferency of that my operative power to act or not to act still remains; the power of moving my hand is not at all impaired by the determination of my will, which at present orders rest; the indifferency of that power to act or not to act, is just as it was before, as will appear if the will puts it to the trial, by ordering the contrary. But if during the rest of my hand it be seized with a sudden palsy, the indifferency of that operative power is gone, and with it my liberty; I have no longer freedom in that respect, but am under a necessity of letting my hand rest. On the other side, if my hand be put into motion by a convulsion, the indifferency of that operative faculty is taken away by that motion, and my liberty in that case is lost: for I am under a necessity of having my hand move. I have added this, to show in what sort of indifferency liberty seems to me to consist, and not in any other, real or imaginary.]

72. [True notions concerning the nature and extent of liberty are of so great importance, that I hope I shall be pardoned this digression, which my attempt

to explain it has led me into. The ideas of will, volition, liberty, and necessity, in this chapter of power, came naturally in my way. In a former edition of this treatise, I gave an account of my thoughts concerning them, according to the light I then had: and now, as a lover of truth, and not a worshipper of my own doctrines, I own some change of my opinion, which I think I have discovered ground for. In what I first writ, I with an unbiassed indifferency followed truth whither I thought she led me. But neither being so vain as to fancy infallibility, nor so disingenuous as to dissemble my mistakes for fear of blemishing my reputation, I have, with the same sincere design for truth only, not been ashamed to publish what a severer inquiry has suggested. It is not impossible but that some may think my former notions right, and some (as I have already found) these latter, and some neither. I shall not at all wonder at this variety in men's opinions; impartial deductions of reason in controverted points being so rare, and exact ones in abstract notions not so very easy, especially if of any length. And therefore I should think myself not a little beholden to any one, who would upon these or any other grounds, fairly clear this subject of liberty from any difficulties that may yet remain.]

[Before I close this chapter, it may perhaps be to our purpose, and help to give us clearer conceptions about power, if we make our thoughts take a little more exact survey of action. I have said above, that we have ideas but of two sorts of action, viz., motion and thinking. These, in truth, though called and counted "actions," yet, if nearly considered, will not be found to be always perfectly so. For, if I mistake not, there

are instances of both kinds, which, upon due consideration, will be found rather passions than actions, and consequently so far the effects barely of passive powers in those subjects which yet on their accounts are thought agents. For in these instances the substance that hath motion or thought receives the impression, whereby it is put into that action, purely from without, and so acts merely by the capacity it has to receive such an impression from some external agent; and such a power is not properly an active power, but a mere passive capacity in the subject. Sometimes the substance or agent puts itself into action by its own power; and this is properly active power. Whatsoever modification a substance has whereby it produces any effect, that is called "action;" *v. g.*, a solid substance by motion operates on or alters the sensible ideas of another substance, and therefore this modification of motion we call "action." But yet this motion in that solid substance is, when rightly considered, but a passion, if it received it only from some external agent. So that the active power of motion is in no substance which cannot begin motion in itself, or in another substance, when at rest. So likewise in thinking, a power to receive ideas or thoughts from the operation of any external substance, is called "a power of thinking:" but this is but a passive power or capacity. But to be able to bring into view ideas out of sight at one's own choice, and to compare which of them one thinks fit, this is an active power. This reflection may be of some use to preserve us from mistakes about powers and actions, which grammar and the common frame of languages may be apt to lead us into: since what is signified by verbs that grammarians call "active," does not always

signify action; *v. g.*, this proposition, "I see the moon or a star," or "I feel the heat of the sun," though expressed by a verb active, does not signify any action in me whereby I operate on those substances; but only the reception of the ideas of light, roundness, and heat, wherein I am not active, but barely passive, and cannot, in that position of my eyes or body, avoid receiving them. But when I turn my eyes another way, or remove my body out of the sunbeams, I am properly active; because of my own choice, by a power within myself, I put myself into that motion. Such an action is the product of active power.]

73. And thus I have, in a short draught, given a view of our original ideas, from whence all the rest are derived, and of which they are made up; which if I would consider as a philosopher, and examine on what causes they depend, and of what they are made, I believe they all might be reduced to these very few primary and original ones, *viz.*, extension, solidity, mobility, or the power of being moved; which by our senses we receive from body: perceptivity, or the power of perception, or thinking; motivity, or the power of moving; which by reflection we receive from our minds. I crave leave to make use of these two new words, to avoid the danger of being mistaken in the use of those which are equivocal. To which if we add existence, duration, number, which belong both to the one and the other, we have perhaps all the original ideas on which the rest depend. For by these, I imagine, might be explained the nature of colours, sounds, tastes, smells, and all other ideas we have, if we had but faculties acute enough to perceive the severally-modified extensions and motions of these minute bodies which produce those several sensations in

us. But my present purpose being only to inquire into the knowledge the mind has of things by those ideas and appearances which God has fitted it to receive from them, and how the mind comes by that knowledge, rather than into their causes or manner of production, I shall not, contrary to the design of this essay, set myself to inquire philosophically into the peculiar constitution of bodies and the configuration of parts, whereby they have the power to produce in us the ideas of their sensible qualities, I shall not enter any farther into that disquisition, it sufficing to my purpose to observe, that gold or saffron has a power to produce in us the idea of yellow; and snow or milk, the idea of white; which we can only have by our sight, without examining the texture of the parts of those bodies, or the particular figures or motion of the particles which rebound from them, to cause in us that particular sensation; though when we go beyond the bare ideas in our minds, and would inquire into their causes, we cannot conceive any thing else to be in any sensible object whereby it produces different ideas in us, but the different bulk, figure, number, texture, and motion of its insensible parts.

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CHAPTER XXIII.

OF OUR COMPLEX IDEAS OF SUBSTANCES.

I. *Ideas of substances, how made.*—The mind being, as I have declared, furnished with a great num-

ber of the simple ideas conveyed in by the senses, as they are found in exterior things, or by reflection on its own operations, takes notice, also, that a certain number of these simple ideas go constantly together; which being presumed to belong to one thing, and words being suited to common apprehensions, and made use of for quick despatch, are called, so united in one subject, by one name; which, by inadvertency, we are apt afterward to talk of and consider as one simple idea, which indeed is a complication of many ideas together: because, as I have said, not imagining how these simple ideas can subsist by themselves, we accustom ourselves to suppose some *substratum* wherein they do subsist, and from which they do result; which therefore we call "substance."

2. *Our idea of substance in general.*—So that if any one will examine himself concerning his notion of pure substance in general, he will find he has no other idea of it at all, but only a supposition of he knows not what support of such qualities which are capable of producing simple ideas in us; which qualities are commonly called "accidents." If any one should be asked, "What is the subject wherein colour or weight inheres?" he would have nothing to say but, "The solid extended parts." And if he were demanded, "What is it that solidity and extension inhere in," he would not be in a much better case than the Indian before mentioned, who, saying that the world was supported by a great elephant, was asked, what the elephant rested on? to which his answer was, "A great tortoise;" but being again pressed to know what gave support to the broad-backed tortoise, replied,—something, he knew not what. And thus here, as in

all other cases where we use words without having clear and distinct ideas, we talk like children; who, being questioned what such a thing is which they know not, readily give this satisfactory answer,—that it is something; which in truth signifies no more, when so used, either by children or men, but that they know not what; and that the thing they pretend to know and talk of, is what they have no distinct idea of at all, and so are perfectly ignorant of it, and in the dark. The idea, then, we have, to which we give the general name “substance,” being nothing but the supposed, but unknown, support of those qualities we find existing, which we imagine cannot subsist *sine re substante*, “without something to support them,” we call that support *substantia*; which, according to the true import of the word, is, in plain English, “standing under,” or “upholding.”

3. *Of the sorts of substances.*—An obscure and relative idea of substance in general being thus made, we come to have the ideas of particular sorts of substances, by collecting such combinations of simple ideas as are by experience and observation of men’s senses taken notice of to exist together, and are therefore supposed to flow from the particular internal constitution or unknown essence of that substance. Thus we come to have the ideas of a man, horse, gold, water, &c., of which substances, whether any one has any other clear idea, farther than of certain simple ideas co-existing together, I appeal to every one’s own experience. It is the ordinary qualities observable in iron or a diamond, put together, that make the true complex idea of those substances, which with a smith or a jeweller commonly knows better than a philosopher; who, whatever substantial forms he may talk of,

has no other idea of those substances than what is framed by a collection of those simple ideas which are to be found in them. Only we must take notice, that our complex ideas of substances, besides all these simple ideas they are made up of, have always the confused idea of something to which they belong, and in which they subsist: and therefore when we speak of any sort of substance, we say it is a thing having such or such qualities; as, body is a thing that is extended, figured, and capable of motion; spirit; a thing capable of thinking; and so hardness, friability, and power to draw iron, we say, are qualities to be found in a loadstone. These and the like fashions of speaking, intimate that the substance is supposed always something, besides the extension, figure, solidity, motion, thinking, or other observable ideas, though we know not what it is.

4. *No clear idea of substance in general.*—Hence, when we talk or think of any particular sort of corporeal substances, as horse, stone, &c., though the idea we have of either of them be but the complication or collection of those several simple ideas of sensible qualities which we used to find united in the thing called “horse” or “stone;” yet because we cannot conceive how they should subsist alone, nor one in another, we suppose them existing in, and supported by, some common subject; which support we denote by the name “substance,” though it be certain we have no clear or distinct idea of that thing we suppose a support.

5. *As clear an idea of spirit as body.*—The same happens concerning the operations of the mind; viz., thinking, reasoning, fearing, &c., which we, concluding not to subsist of themselves, nor apprehending

how they can belong to body, or be produced by it, we are apt to think these the actions of some other substance, which we call "spirit;" whereby yet it is evident, that having no other idea or notion of matter, but something wherein those many sensible qualities which affect our senses do subsist; by supposing a substance wherein thinking, knowing, doubting, and a power of moving, &c., do subsist; we have as clear a notion of the substance of spirit as we have of body: the one being supposed to be (without knowing what it is) the *substratum* to those simple ideas we have from without; and the other supposed (with a like ignorance of what it is) to be the *substratum* to those operations which we experiment in ourselves within. It is plain, then, that the idea of corporeal substance in matter is as remote from our conceptions and apprehensions as that of spiritual substance, or spirit; and therefore, from our not having any notion of the substance of spirit, we can no more conclude its non-existence than we can, for the same reason, deny the existence of body: it being as rational to affirm there is no body, because we have no clear and distinct idea of the substance of matter, as to say there is no spirit, because we have no clear and distinct idea of the substance of a spirit.

6. *Of the sorts of substances.*—Whatever therefore be the secret and abstract nature of substance in general, all the ideas we have of particular, distinct sorts of substances, are nothing but several combinations of simple ideas co-existing in such, though unknown, cause of their union, as makes the whole subsist of itself. It is by such combinations of simple ideas, and nothing else, that we represent particular sorts of substances to ourselves; such are the ideas we

have of their several species in our minds; and such only do we, by their specific names, signify to others; *v. g.*, man, horse, sun, water, iron; upon hearing which words every one, who understands the language, frames in his mind a combination of those several simple ideas which he has usually observed or fancied to exist together under that denomination; all which he supposes to rest in, and be, as it were, adherent to, that unknown common subject, which inheres not in anything else: though in the mean time it be manifest, and every one upon inquiry into his own thoughts will find, that he has no other idea of any substance, *v. g.*, let it be gold, horse, iron, man, vitriol, bread, but what he has barely of those sensible qualities which he supposes to inhere with a supposition of such a *substratum* as gives, as it were, a support to those qualities, or simple ideas, which he has observed to exist united together. Thus, the idea of the sun, what is it but an aggregate of those several simple ideas,—bright, hot, roundish, having a constant regular motion, at a certain distance from us,—and perhaps some other? as he who thinks and discourses of the sun has been more or less accurate in observing those sensible qualities, ideas, or properties which are in that thing which he calls the “sun.”

7. *Power, a great part of our complex ideas of substances.*—For he has the perfectest idea of any of the particular sorts of substances who has gathered and put together most of those simple ideas which do exist in it, among which are to be reckoned its active powers and passive capacities; which, though not simple ideas, yet in this respect, for brevity's sake, may conveniently enough be reckoned amongst them. Thus, the power of drawing iron is one of the ideas

of the complex one of that substance we call a “load-stone,” and a power to be so drawn is a part of the complex one we call “iron;” which powers pass for inherent qualities in those subjects: because every substance being as apt, by the powers we observe in it, to change some sensible qualities in other subjects, as it is to produce in us those simple ideas which we receive immediately from it, does, by those new sensible qualities introduced into other subjects, discover to us those powers which do thereby mediately affect our senses as regularly as its sensible qualities do it immediately; *v. g.*, we immediately by our senses perceive in fire its heat and colour; which are, if rightly considered, nothing but powers in it to produce those ideas in us: we also by our senses perceive the colour and brittleness of charcoal, whereby we come by the knowledge of another power in fire, which it has to change the colour and consistency of wood. By the former, fire immediately, by the latter it mediately, discovers to us these several powers, which therefore we look upon to be a part of the qualities of fire, and so make them a part of the complex idea of it. For, all those powers that we take cognizance of, terminating only in the alteration of some sensible qualities in those subjects on which they operate, and so making them exhibit to us new sensible ideas; therefore it is that I have reckoned these powers amongst the simple ideas which make the complex ones of the sorts of substances; though these powers, considered in themselves, are truly complex ideas. And in this looser sense I crave leave to be understood, when I name any of these potentialities amongst the simple ideas which we recollect in our minds when we think of particular substances. For the powers that are severally in them

are necessary to be considered, if we will have true distinct notions of the several sorts of substances.

8. *And why.*—Nor are we to wonder that powers make a great part of our complex ideas of substances, since their secondary qualities are those which, in most of them, serve principally to distinguish substances one from another, and commonly make a considerable part of the complex idea of the several sorts of them. For, our senses failing us in the discovery of the bulk texture, and figure of the minute parts of bodies, on which their real constitutions and differences depend, we are fain to make use of their secondary qualities, as the characteristical notes and marks whereby to frame ideas of them in our minds, and distinguish them one from another, all which secondary qualities, as has been shown, are nothing but bare powers. For the colour and taste of opium are, as well as its soporific or anodyne virtues, mere powers depending on its primary qualities, whereby it is fitted to produce different operations on different parts of our bodies.

9. *Three sorts of ideas make our complex ones of substances.*—The ideas that make our complex ones of corporeal substances are of these three sorts. First. The ideas of the primary qualities of things which are discovered by our senses, and are in them even when we perceive them not: such are the bulk, figure, number, situation, and motion of the parts of bodies, which are really in them, whether we take notice of them or no. Secondly. The sensible secondary qualities which, depending on these, are nothing but the powers those substances have to produce several ideas in us by our senses; which ideas are not in the things themselves otherwise than as any thing is in its cause. Thirdly.

The aptness we consider in any substance to give or receive such alterations of primary qualities as that the substance so altered should produce in us different ideas from what it did before; these are called “active and passive powers:” all which powers, as far as we have any notice or notion of them, terminate only in sensible simple ideas. For, whatever alteration a loadstone has the power to make in the minute particles of iron, we should have no notion of any power it had at all to operate on iron, did not its sensible motion discover it; and I doubt not but there are a thousand changes that bodies we daily handle have a power to cause in one another, which we never suspect, because they never appear in sensible effects.

10. *Powers make a great part of our complex ideas of substances.*—Powers therefore justly make a great part of our complex ideas of substances. He that will examine his complex idea of gold, will find several of its ideas that make it up to be only powers: as the power of being melted, but of not spending itself in the fire, of being dissolved in *aqua regia*, are ideas as necessary to make up our complex idea of gold, as its colour, and weight: which, if duly considered, are also nothing but different powers. For, to speak truly, yellowness is not actually in gold; but is a power in gold to produce that idea in us by our eyes, when placed in a due light; and the heat which we cannot leave out of our idea of the sun, is no more really in the sun than the white colour it introduces into wax. These are both equally powers in the sun, operating, by the motion and figure of its insensible parts, so on a man as to make him have the idea of heat; and so on wax as to make it capable to produce in a man the idea of white,

11. *The now secondary qualities of bodies would disappear, if we could discover the primary ones of their minute parts.*—Had we senses acute enough to discern the minute particles of bodies, and the real constitution on which their sensible qualities depend, I doubt not but they would produce quite different ideas in us, and that which is now the yellow colour of gold would then disappear, and instead of it we should see an admirable texture of parts of a certain size and figure. This microscopes plainly discover to us; for, what to our naked eyes produces a certain colour is, by thus augmenting the acuteness of our senses, discovered to be quite a different thing; and the thus altering, as it were, the proportion of the bulk of the minute parts of a coloured object to our usual sight, produces different ideas from what it did before. Thus sand, or pounded glass, which is opaque and white to the naked eye, is pellucid in a microscope; and a hair seen this way loses its former colour, and is in a great measure pellucid, with a mixture of some bright sparkling colours, such as appear from the refraction of diamonds and other pellucid bodies. Blood to the naked eye appears all red; but by a good microscope, wherein its lesser parts appear, shows only some few globules of red, swimming in a pellucid liquor; and how these red globules would appear, if glasses could be found that yet could magnify them one thousand or ten thousand times more, is uncertain.

12. *Our faculties of discovery suited to our state.*—The infinite wise Contriver of us and all things about us hath fitted our senses, faculties, and organs to the conveniences of life, and the business we have to do here. We are able by our senses to know and distinguish things, and to examine them so far as to

apply them to our uses, and several ways to accommodate the exigencies of this life. We have insight enough into their admirable contrivances and wonderful effects to admire and magnify the wisdom, power, and goodness of their Author. Such a knowledge as this, which is suited to our present condition, we want not faculties to attain. But it appears not that God intended we should have a perfect, clear, and adequate knowledge of them, that perhaps is not in the comprehension of any finite being. We are furnished with faculties (dull and weak as they are) to discover enough in the creatures to lead us to the knowledge of the Creator, and the knowledge of our duty; and we are fitted well enough with abilities to provide for the conveniences of living; these are our business in this world. But were our senses altered, and made much quicker and acuter, the appearance and outward scheme of things would have quite another face to us; and, I am apt to think, would be inconsistent with our being, or at least well-being, in this part of the universe which we inhabit. He that considers how little our constitution is able to bear a remove into parts of this air not much higher than that we commonly breathe in, will have reason to be satisfied that, in this globe of earth allotted for our mansion, the all-wise Architect has suited our organs and the bodies that are to affect them one to another. If our sense of hearing were but a thousand times quicker than it is, how would a perpetual noise distract us! and we should, in the quietest retirement, be less able to sleep or meditate than in the middle of a sea-fight. Nay, if that most instructive of our senses, seeing, were in any man a thousand or a hundred thousand times more acute than it is by the best microscope, things sev-

eral million of times less than the smallest object of his sight now would then be visible to his naked eyes, and so he would come nearer the discovery of the texture and motion of the minute parts of corporeal things, and in many of them probably get ideas of their internal constitutions; but then he would be in a quite different world from other people; nothing would appear the same to him and others; the visible ideas of every thing would be different. So that I doubt whether he and the rest of men could discourse concerning the objects of sight, or have any communication about colours, their appearances being so wholly different. And perhaps such a quickness and tenderness of sight could not endure bright sunshine, or so much as open daylight; nor take in but a very small part of any object at once, and that too only at a very near distance. And if by the help of such microscopical eyes (if I may so call them), a man could penetrate farther than ordinary into the secret composition and radical texture of bodies, he would not make any great advantage by the change, if such an acute sight would not serve to conduct him to the market and exchange; if he could not see things he was to avoid at a convenient distance, nor distinguish things he had to do with by those sensible qualities others do. He that was sharp-sighted enough to see the configuration of the minute particles of the spring of a clock, and observe upon what peculiar structure and impulse its elastic motion depends, would no doubt discover something very admirable. But if eyes so framed could not view at once the hand, and the characters of the hour-plate, and thereby at a distance see what o'clock it was, their owner could not be much benefited by that acuteness; which, whilst

it discovered the secret contrivance of the parts of the machine, made him lose its use.

13. *Conjecture about spirits.*—And here give me leave to propose an extravagant conjecture of mine, viz., that, since we have some reason (if there be any credit to be given to the report of things that our philosophy cannot account for) to imagine that spirits can assume to themselves bodies of different bulk, figure, and conformation of parts; whether one great advantage some of them have over us may not lie in this, that they can so frame and shape to themselves organs of sensation or perception as to suit them to their present design, and the circumstances of the object they would consider. For, how much would that man exceed all others in knowledge, who had but the faculty so to alter the structure of his eyes (that one sense), as to make it capable of all the several degrees of vision, which the assistance of glasses (casually at first lighted on) has taught us to conceive! What wonders would he discover who could so fit his eyes to all sorts of objects, as to see when he pleased the figure and motion of the minute particles in the blood and other juices of animals, as distinctly as he does at other times the shape and motion of the animals themselves! But to us, in our present state, unalterable organs, so contrived as to discover the figure and motion of the minute parts of bodies whereon depend those sensible qualities we now observe in them, would perhaps be of no advantage. God has, no doubt, made them so as is best for us in our present condition. He hath fitted us for the neighbourhood of the bodies that surround us, and we have to do with; and though we cannot, by the faculties we have, attain to a perfect knowledge of things, yet they will

serve us well enough for those ends above mentioned, which are our great concernment. I beg my reader's pardon for laying before him so wild a fancy concerning the ways of perception in beings above us; but how extravagant soever it be, I doubt whether we can imagine any thing about the knowledge of angels but after this manner, some way or other, in proportion to what we find and observe in ourselves. And though we cannot but allow that the infinite power and wisdom of God may frame creatures with a thousand other faculties and ways of perceiving things without them than what we have, yet our thoughts can go no farther than our own, so impossible it is for us to enlarge our very guesses beyond the ideas received from our own sensation and reflection. The supposition, at least, that angels do sometimes assume bodies, needs not startle us, since some of the most ancient and most learned Fathers of the church seemed to believe that they had bodies; and this is certain, that their state and way of existence is unknown to us.

14. *Complex ideas of substances.*—But to return to the matter in hand, the ideas we have of substances, and the ways we come by them; I say, Our specific ideas of substances are nothing else but a collection of a certain number of simple ideas, considered as united in one thing. These ideas of substances, though they are commonly “simple apprehensions,” and the names of them “simple terms;” yet, in effect, are complex and compounded. Thus the idea which an Englishman signifies by the name “swan,” is white colour, long neck, red beak, black legs, and whole feet, and all these of a certain size, with a power of swimming in the water, and making a certain kind of noise; and perhaps to a man who

has long observed this kind of birds, some other properties, which all terminate in sensible simple ideas, all united in one common subject.

15. *Idea of spiritual substances as clear as of bodily substances.*— Besides the complex ideas we have of material sensible substances, of which I have last spoken, by the simple ideas we have taken from those operations of our own minds, which we experiment daily in ourselves, as thinking, understanding, willing, knowing, and power of beginning motion, &c., co-existing in some substance, we are able to frame the complex idea of an immaterial spirit. And thus, by putting together the ideas of thinking, perceiving, liberty, and power of moving themselves and other things, we have as clear a perception and notion of immaterial substances as we have of material. For putting together the ideas of thinking and willing, or the power of moving or quieting corporeal motion, joined to substance, of which we have no distinct idea, we have the idea of an immaterial spirit; and by putting together the ideas of coherent solid parts, and a power of being moved, joined with substance, of which, likewise we have no positive idea, we have the idea of matter. The one is as clear and distinct an idea as the other: the idea of thinking and moving a body being as clear and distinct ideas as the ideas of extension, solidity, and being moved. For our idea of substance is equally obscure, or none at all, in both; it is but a supposed I-know-not-what, to support those ideas we call “accidents.” [It is for want of reflection that we are apt to think that our senses show us nothing but material things. Every act of sensation, when duly considered, gives us an equal view of both parts of nature, the corporeal and spiritual. For,

whilst I know, by seeing or hearing, &c., that there is some corporeal being without me, the object of that sensation, I do more certainly know that there is some spiritual being within me that sees and hears. This I must be convinced cannot be the action of bare insensible matter, nor ever could be without an immaterial thinking being.]

16. *No idea of abstract substance.*—By the complex idea of extended, figured, coloured, and all other sensible qualities, which is all that we know of it, we are as far from the idea of the substance of body as if we knew nothing at all; nor after all the acquaintance and familiarity which we imagine we have with matter, and the many qualities men assure themselves they perceive and know in bodies, will it, perhaps, upon examination be found, that they have any more or clearer primary ideas belonging to body than they have belonging to immaterial spirit.

17. *The cohesion of solid parts and impulse, the primary ideas of body.*—The primary ideas we have peculiar to body, as contra-distinguished to spirit, are the cohesion of solid, and consequently separable parts, and a power of communicating motion by impulse. These, I think, are the original ideas proper and peculiar to body; for figure is but the consequence of finite extension.

18. *Thinking and motivity, the primary ideas of spirit.*—The ideas we have belonging and peculiar to spirit are thinking, and will, or a power of putting body into motion by thought, and, which is consequent to it, liberty. For as body cannot but communicate its motion by impulse to another body, which it meets with at rest; so the mind can put bodies into motion, or forbear to do so, as it pleases. The ideas of

existence, duration, and mobility are common to them both.

19. *Spirits capable of motion.*— There is no reason why it should be thought strange that I make mobility belong to spirit; for, having no other idea of motion but change of distance with other beings that are considered as at rest; and finding that spirits as well as bodies cannot operate but where they are, and that spirits do operate at several times in several places, I cannot but attribute change of place to all finite spirits; — for of the infinite Spirit I speak not here. For, my soul, being a real being, as well as my body, is certainly as capable of changing distance with any other body or being as body itself, and so is capable of motion. And if a mathematician can consider a certain distance or a change of that distance between two points, one may certainly conceive a distance and a change of distance between two spirits; and so conceive their motion, their approach or removal, one from another.

20. Every one finds in himself, that his soul can think, will, and operate on his body, in the place where that is; but cannot operate on a body, or in a place, an hundred miles distant from it. Nobody can imagine, that his soul can think or move a body at Oxford, whilst he is at London; and cannot but know that, being united to his body, it constantly changes place all the whole journey between Oxford and London, as the coach or horse does that carries him; and I think may be said to be truly all that while in motion: or, if that will not be allowed to afford us a clear idea enough of its motion, its being separated from the body in death, I think, will; for, to consider

it as going out of the body, or leaving it, and yet to have no idea of its motion, seems to me, impossible.

21. If it be said by any one, that it cannot change place, because it hath none, for the spirits are not in *loco*, but *ubi*; I suppose that way of talking will not now be of much weight to many in an age that is not much disposed to admire, or suffer themselves to be deceived by, such unintelligible ways of speaking. But if any one thinks there is any sense in that distinction, and that it is applicable to our present purpose, I desire him to put it into intelligible English, and then from thence draw a reason to show that immaterial spirits are not capable of motion. Indeed, motion cannot be attributed to God, not because he is an immaterial, but because he is an infinite, Spirit.

22. *Idea of soul and body compared.*—Let us compare, then, our complex idea of an immaterial spirit with our complex idea of body, and see whether there be any more obscurity in one than in the other, and in which most. Our idea of body, as I think, is an extended solid substance, capable of communicating motion by impulse: and our idea of soul, as an immaterial spirit, is of a substance that thinks, and has a power of exciting motion in body, by willing or thought. These, I think, are our complex ideas of soul and body, as contra-distinguished; and now let us examine which has most obscurity in it, and difficulty to be apprehended. I know that people, whose thoughts are immersed in matter, and have so subjected their minds to their senses that they seldom reflect on any thing beyond them, are apt to say, they cannot comprehend a thinking thing, which perhaps is true: but I affirm when they consider it well, they can no more comprehend an extended thing.

23. *Cohesion of solid parts in body, as hard to be conceived as thinking in a soul.*—If any one says, he knows not what it is thinks in him; he means, he knows not what the substance is of that thinking thing: no more, say I, knows he what the substance is of that solid thing. Farther, if he says, he knows not how he thinks; I answer, Neither knows he how he is extended; how the solid parts of body are united or cohere together to make extension. For though the pressure of the particles of air may account for the cohesion of several parts of matter that are grosser than the particles of air, and have pores less than the corpuscles of air; yet the weight or pressure of the air will not explain, nor can be a cause of, the coherence of the particles of air themselves. And if the pressure of the ether, or any subtiler matter than the air, may unite and hold fast together the parts of a particle of air, as well as other bodies; yet it cannot make bonds for itself, and hold together the parts that make up every the least corpuscle of that *materia subtilis*. So that that hypothesis, how ingeniously soever explained, by showing that the parts of sensible bodies are held together by the pressure of other external insensible bodies, reaches not the parts of the ether itself; and by how much the more evident it proves that the parts of other bodies are held together by the external pressure of the ether, and can have no other conceivable cause of their cohesion and union, by so much the more it leaves us in the dark concerning the cohesion of the parts of the corpuscles of the ether itself; which we can neither conceive without parts, they being bodies and divisible; nor yet how their parts cohere, they wanting that cause of cohesion which is given of the cohesion of the parts of all other bodies.

24. But, in truth, the pressure of any ambient fluid, how great soever, can be no intelligible cause of the cohesion of the solid parts of matter. For though such a pressure may hinder the avulsion of two polished superficies one from another, in a line perpendicular to them, as in the experiment of two polished marbles; yet it can never, in the least, hinder the separation by a motion, in a line parallel to those surfaces. Because the ambient fluid, having a full liberty to succeed in each point of space deserted by a lateral motion, resists such a motion of bodies so joined, no more than it would resist the motion of that body were it on all sides environed by that fluid, and touched no other body: and therefore, if there were no other cause of cohesion, all parts of bodies must be easily separable by such a lateral sliding motion. For if the pressure of the ether be the adequate cause of cohesion, wherever that cause operates not, there can be no cohesion. And since it cannot operate against a lateral separation (as has been shown), therefore in every imaginary plane, intersecting any mass of matter, there could be no more cohesion than of two polished surfaces, which will always, notwithstanding any imaginable pressure of a fluid, easily slide one from another. So that perhaps, how clear an idea soever we think we have of the extension of body, which is nothing but the cohesion of solid parts, he that shall well consider it in his mind, may have reason to conclude, that it is as easy for him to have a clear idea how the soul thinks, as how body is extended. For since body is no farther nor otherwise extended than by the union and cohesion of its solid parts, we shall very ill comprehend the extension of body without understanding wherein consists the union and cohesion

of its parts; which seems to me as incomprehensible as the manner of thinking, and how it is performed.

25. I allow it is usual for most people to wonder how any one should find a difficulty in what they think they every day observe. "Do we not see," will they be ready to say, "that parts of bodies stick firmly together? Is there any thing more common? And what doubt can there be made of it?" And the like I say concerning thinking, and voluntary motion: Do we not every moment experiment it in ourselves; and therefore can it be doubted? The matter of fact is clear, I confess; but when we would a little nearer look into it, and consider how it is done, there, I think, we are at a loss, both in the one and the other; and can as little understand how the parts of body cohere, as how we ourselves perceive or move. I would have any one intelligibly explain to me, how the parts of gold or brass (that but now in fusion were as loose from one another as the particles of water, or the sands of an hour-glass) come in a few moments to be so united, and adhere so strongly one to another, that the utmost force of men's arms cannot separate them: a considering man will, I suppose, be here at a loss to satisfy his own or another man's understanding.

26. The little bodies that compose that fluid we call "water" are so extremely small, that I have never heard of any one who, by a microscope (and yet I have heard of some that have magnified to 10,000, nay to much above 100,000 times), pretended to perceive their distinct bulk, figure, or motion. And the particles of water are also so perfectly loose one from another, that the least force sensibly separates them; nay, if we consider their perpetual motion, we must allow them to have no cohesion one with another; and

yet let but a sharp cold come, and they unite, they consolidate, these little atoms cohere, and are not, without great force, separable. He that could find the bonds that tie these heaps of loose little bodies together so firmly, he that could make known the cement that makes them stick so fast one to another, would discover a great and yet unknown secret: and yet, when that was done, would he be far enough from making the extension of body (which is the cohesion of its solid parts) intelligible, till he could show wherein consisted the union or consolidation of the parts of those bonds, or of that cement, or of the least particle of matter that exists. Whereby it appears, that this primary and supposed obvious quality of body will be found, when examined, to be as incomprehensible, as any thing belonging to our minds, and a solid extended substance, as hard to be conceived as a thinking immaterial one, whatever difficulties some would raise against it.

27. For, to extend our thoughts a little farther, that pressure, which is brought to explain the cohesion of bodies, is as unintelligible as the cohesion itself. For, if matter be considered, as no doubt it is, finite, let any one send his contemplation to the extremities of the universe, and there see what conceivable hoops, what bond, he can imagine to hold this mass of matter in so close a pressure together, from whence steel has its firmness, and the parts of a diamond their hardness and indissolubility. If matter be finite, it must have its extremes; and there must be something to hinder it from scattering asunder. If, to avoid this difficulty, any one will throw himself into the supposition and abyss of infinite matter, let him consider what light he thereby brings to the cohesion of body;

and whether he be ever the nearer making it intelligible, by resolving it into a supposition the most absurd and most incomprehensible of all other: so far is our extension of body (which is nothing but the cohesion of solid parts) from being clearer, or more distinct, when we would inquire into the nature, cause, or manner of it, than the idea of thinking.

28. *Communication of motion by impulse, or by thought, equally intelligible.*—Another idea we have of body, is the power of communication of motion by impulse; and of our souls, the power of exciting motion by thought. These ideas, the one of body, the other of our minds, every day's experience clearly furnishes us with: but if here again we inquire how this is done, we are equally in the dark. For in the communication of motion by impulse, wherein as much motion is lost to one body as is got to the other, which is the ordinariest case, we can have no other conception but of the passing of motion out of one body into another; which, I think, is as obscure and inconceivable, as how our minds move or stop our bodies by thought; which we every moment find they do. The increase of motion by impulse, which is observed or believed sometimes to happen, is yet harder to be understood. We have by daily experience clear evidence of motion produced both by impulse and by thought; but the manner how, hardly comes within our comprehension; we are equally at a loss in both. So that, however we consider motion, and its communication either from body or spirit, the idea which belongs to spirit is at least as clear as that which belongs to body. And if we consider the active power of moving, or, as I may call it, "motivity," it is much clearer in spirit than body, since two bodies, placed by one another at rest,

will never afford us the idea of a power in the one to move the other, but by a borrowed motion: whereas the mind every day affords ideas of an active power of moving of bodies; and therefore it is worth our consideration, whether active power be not the proper attribute of spirits, and passive power of matter. Hence may be conjectured, that created spirits are not totally separate from matter; because they are both active and passive. Pure spirit, viz., God, is only active; pure matter is only passive; those beings that are both active and passive, we may judge to partake of both. But be that as it will, I think we have as many and as clear ideas belonging to spirit as we have belonging to body, the substance of each being equally unknown to us; and the idea of thinking in spirit, as clear as of extension in body: and the communication of motion by thought, which we attribute to spirit, is as evident as that by impulse which we ascribe to body. Constant experience makes us sensible of both of these, though our narrow understandings can comprehend neither. For when the mind would look beyond those original ideas we have from sensation or reflection, and penetrate into their causes and manner of production, we find still it discovers nothing but its own short-sightedness.

29. To conclude: Sensation convinces us, that there are solid, extended substances; and reflection, that there are thinking ones; experience assures us of the existence of such beings; and that the one hath a power to move body by impulse, the other by thought; this we cannot doubt of. Experience, I say, every moment furnishes us with the clear ideas both of the one and the other. But beyond these ideas, as received from their proper sources, our faculties will not reach.

If we would inquire farther into their nature, causes, and manner, we perceive not the nature of extension clearer than we do of thinking. If we would explain them any farther, one is as easy as the other; and there is no more difficulty to conceive how a substance we know not should by thought set body into motion, than how a substance we know not should by impulse set body into motion. So that we are no more able to discover wherein the ideas belonging to body consist, than those belonging to spirit. From whence it seems probable to me, that the simple ideas we receive from sensation and reflection are the boundaries of our thoughts; beyond which, the mind, whatever efforts it would make, is not able to advance one jot; nor can it make any discoveries, when it would pry into the nature and hidden causes of those ideas.

30. *Idea of body and spirit compared.*— So that, in short, the idea we have of spirit, compared with the idea we have of body, stands thus: The substance of spirit is unknown to us; and so is the substance of body equally unknown to us: two primary qualities or properties of body, viz., solid coherent parts and impulse, we have distinct clear ideas of: so likewise we know and have distinct clear ideas of two primary qualities or properties of spirit, viz., thinking, and a power of action; *i. e.*, a power of beginning or stopping several thoughts or motions. We have also the ideas of several qualities inherent in bodies, and have the clear distinct ideas of them: which qualities are but the various modifications of the extension of cohering solid parts and their motion. We have likewise the ideas of several modes of thinking, viz., believing, doubting, intending, fearing, hoping; all which are but the several modes of thinking. We have also the

ideas of willing, and moving the body consequent to it, and with the body itself too; for, as has been showed, spirit is capable of motion.

31. *The notion of spirit involves no more difficulty in it than that of body.*—Lastly. If this notion of immaterial spirit may have, perhaps, some difficulties in it not easy to be explained, we have therefore no more reason to deny or doubt the existence of such spirits, than we have to deny or doubt the existence of body because the notion of body is cumbered with some difficulties, very hard and perhaps impossible to be explained or understood by us. For I would fain have instanced any thing in our notion of spirit more perplexed, or nearer a contradiction, than the very notion of body includes in it; the divisibility *in infinitum* of any finite extension involving us, whether we grant or deny it, in consequences impossible to be explicated or made in our apprehensions consistent; consequences that carry greater difficulty and more apparent absurdity, than any thing can follow from the notion of an immaterial knowing substance.

32. *We know nothing beyond our simple ideas.*—Which we are not at all to wonder at, since we, having but some few superficial ideas of things, discovered to us only by the senses from without, or by the mind reflecting on what it experiments in itself within, have no knowledge beyond that, much less of the internal constitution and true nature of things, being destitute of faculties to attain it. And therefore experimenting and discovering in ourselves knowledge and the power of voluntary motion, as certainly as we experiment or discover in things without us the cohesion and separation of solid parts, which is the extension and motion of bodies; we have as much reason to be satisfied

with our notion of immaterial spirit, as with our notion of body; and the existence of the one as well as the other. For, it being no more a contradiction that thinking should exist separate and independent from solidity, than it is a contradiction that solidity should exist separate and independent from thinking, they being both but simple ideas, independent one from another; and having as clear and distinct ideas in us of thinking as of solidity, I know not why we may not as well allow a thinking thing without solidity, *i.e.*, immaterial, to exist, as a solid thing without thinking, *i.e.*, matter, to exist; especially since it is not harder to conceive how thinking should exist without matter, than how matter should think. For whensoever we would proceed beyond these simple ideas we have from sensation and reflection, and dive farther into the nature of things, we fall presently into darkness and obscurity, perplexedness and difficulties; and can discover nothing farther but our own blindness and ignorance. But whichever of these complex ideas be clearest, that of body or immaterial spirit, this is evident, that the simple ideas that make them up are no other than what we have received from sensation or reflection; and so is it of all our other ideas of substances, even of God himself.

33. *Idea of God.*—For if we examine the idea we have of the incomprehensible Supreme Being, we shall find, that we come by it the same way; and that the complex ideas we have both of God and separate spirits are made of the simple ideas we receive from reflection: *v. g.*, having, from what we experiment in ourselves, got the ideas of existence and duration, of knowledge and power, of pleasure and happiness, and of several other qualities and powers which it is

better to have than to be without; when we would frame an idea the most suitable we can to the Supreme Being, we enlarge every one of these with our idea of infinity; and so, putting them together, make our complex idea of God. For, that the mind has such a power of enlarging some of its ideas, received from sensation and reflection, has been already showed.

34. If I find that I know some few things; and some of them, or all, perhaps, imperfectly; I can frame an idea of knowing twice as many, which I can double again as often as I can add to number; and thus enlarge my idea of knowledge, by extending its comprehension to all things existing or possible. The same also I can do of knowing them more perfectly; *i. e.*, all their qualities, powers, causes, consequences, and relations, &c., till all be perfectly known that is in them, or can any way relate to them; and thus frame the idea of infinite or boundless knowledge. The same may also be done of power, till we come to that we call "infinite;" and also of the duration of existence without beginning or end; and so frame the idea of an eternal being. The degrees or extent, wherein we ascribe existence, power, wisdom, and all other perfections (which we can have any ideas of), to that Sovereign Being which we call "God," being all boundless and infinite, we frame the best idea of him our minds are capable of: all which is done, I say, by enlarging those simple ideas we have taken from the operations of our own minds by reflection, or by our senses from exterior things, to that vastness to which infinity can extend them.

35. *Idea of God.*—For it is infinity which, joined to our ideas of existence, power, knowledge, &c., makes that complex idea whereby we represent to ourselves,

the best we can, the Supreme Being. For though in his own essence, which certainly we do not know (not knowing the real essence of a pebble, or a fly, or of our own selves), God be simple and uncompounded; yet, I think, I may say we have no other idea of him but a complex one of existence; knowledge, power, happiness, &c., infinite and eternal: which are all distinct ideas, and some of them being relative are again compounded of others; all which, being, as has been shown, originally got from sensation and reflection, go to make up the idea or notion we have of God.

36. *No ideas in our complex one of spirits, but those got from sensation or reflection.*—This farther is to be observed, that there is no idea we attribute to God, bating infinity, which is not also a part of our complex idea of other spirits. Because, being capable of no other simple ideas belonging to any thing but body, but those which by reflection we receive from the operation of our own minds, we can attribute to spirits no other but what we receive from thence: and all the difference we can put between them in our contemplation of spirits, is only in the several extents and degrees of their knowledge, power, duration, happiness, &c. For that in our ideas, as well of spirits as of other things, we are restrained to those we receive from sensation and reflection, is evident from hence, that in our ideas of spirits, how much soever advanced in perfection beyond those of bodies, even to that of infinite, we cannot yet have any idea of the manner wherein they discover their thoughts one to another: though we must necessarily conclude that separate spirits, which are beings that have perfecter knowledge and greater happiness than we, must needs have also a perfecter way of communicating their thoughts

than we have, who are fain to make use of corporeal signs and particular sounds, which are therefore of most general use, as being the best and quickest we are capable of. But of immediate communication having no experiment in ourselves, and consequently no notion of it at all, we have no idea how spirits which use not words can with quickness, or, much less, how spirits that have no bodies, can be masters of their own thoughts, and communicate or conceal them at pleasure, though we cannot but necessarily suppose they have such a power.

37. *Recapitulation.*—And thus we have seen what kind of ideas we have of substances of all kinds, wherein they consist, and how we came by them. From whence, I think, it is very evident.

First, That all our ideas of the several sorts of substances are nothing but collections of simple ideas, with a supposition of something to which they belong, and in which they subsist; though of this supposed something we have no clear distinct idea at all.

Secondly, That all the simple ideas that, thus united in one common substratum, make up our complex ideas of several sorts of substances, are no other but such as we have received from sensation or reflection. So that even in those which we think we are most intimately acquainted with, and that come nearest the comprehension of our most enlarged conceptions, we cannot reach beyond those simple ideas. And even in those which seem most remote from all we have to do with, and do infinitely surpass any thing we can perceive in ourselves by reflection, or discover by sensation in other things, we can attain to nothing but those simple ideas which we originally received from sensation

or reflection; as is evident in the complex ideas we have of angels, and particularly of God himself.

Thirdly, That most of the simple ideas that make up our complex ideas of substances, when truly considered, are only powers, however we are apt to take them for positive qualities: *v. g.*, the greatest part of the ideas that make our complex idea of gold are yellowness, great weight, ductility, fusibility, and solubility in *aqua regia*, &c., all united together in an unknown substratum; all which ideas are nothing else but so many relations to other substances, and are not really in the gold considered barely in itself, though they depend on those real and primary qualities of its internal constitution, whereby it has a fitness differently to operate and be operated on by several other substances.

CHAPTER XXIV.

OF COLLECTIVE IDEAS OF SUBSTANCES.

I. *One idea.*— Besides these complex ideas of several single substances, as of man, horse, gold, violet, apple, &c., the mind hath also “complex collective ideas” of substances; which I so call, because such ideas are made up of many particular substances considered together, as united into one idea, and which so joined are looked on as one; *v. g.*, the idea of such a collection of men as make an army, though consisting of a great number of distinct substances, is as much one idea as the idea of a man: and the great collective idea of all bodies whatsoever, signified by the name “world,” is as much one idea as the idea of any the least particle of matter in it; it sufficing to the unity of any idea, that it be considered as one representation

or picture, though made up of ever so many particulars.

2. *Made by the power of composing in the mind.*—These collective ideas of substances the mind makes by its power of composition, and uniting, severally, either simple or complex ideas into one, as it does by the same faculty make the complex ideas of particular substances, consisting of an aggregate of divers simple ideas united in one substance: and as the mind, by putting together the repeated ideas of unity, makes the collective mode or complex idea of any number, as a score, or a gross, &c., so by putting together several particular substances, it makes collective ideas of substances, as a troop, an army, a swarm, a city, a fleet: each of which every one finds that he represents to his own mind by one idea, in one view; and so under that notion considers those several things as perfectly one, as one ship, or one atom. Nor is it harder to conceive how an army of ten thousand men should make one idea, than how a man should make one idea; it being as easy to the mind to unite into one the idea of a great number of men, and consider it as one, as it is to unite into one particular all the distinct ideas that make up the composition of a man, and consider them all together as one.

3. *All artificial things are collective ideas.*—Amongst such kind of collective ideas, are to be counted most part of artificial things, at least such of them as are made up of distinct substances: and in truth, if we consider all these collective ideas aright, as “army, constellation, universe,” as they are united into so many single ideas, they are but the artificial draughts of the mind, bringing things very remote, and independent on one another, into one view, the better

to contemplate and discourse of them, united into one conception, and signified by one name. For there are no things so remote, nor so contrary, which the mind cannot, by this art of composition, bring into one idea, as is visible in that signified by the name “universe.”

CHAPTER XXV.

OF RELATION.

I. *Relation, what.*—Besides the ideas, whether simple or complex, that the mind has of things, as they are in themselves, there are others it gets from their comparison one with another. The understanding, in the consideration of any thing, is not confined to that precise object: it can carry any idea, as it were, beyond itself, or, at least, look beyond it to see how it stands in conformity to any other. When the mind so considers one thing, that it does, as it were, bring it to and set it by another, and carries its view from one to the other: this is, as the words import, “relation” and “respect;” and the denominations given to positive things, intimating that respect, and serving as marks to lead the thoughts beyond the subject itself denominated to something distinct from it, are what we call “relatives;” and the things so brought together, “related.” Thus, when the mind considers Caius as such a positive being, it takes nothing into that idea, but what really exists in Caius; *v. g.*, when I consider him as man, I have nothing in my mind but the complex idea of the species man. So likewise, when I say, “Caius is a white man,” I have nothing but the bare consideration of man who hath that white colour. But when I give Caius the name “husband,” I intimate

some other person; and when I give him the name "whiter." I intimate some other thing: in both cases my thought is led to something beyond Caius, and there are two things brought into consideration. And since any idea, whether simple or complex, may be the occasion why the mind thus brings two things together, and as it were, takes a view of them at once, though still considered as distinct; therefore any of our ideas may be the foundation of relation. As in the above-mentioned instance, the contract and ceremony of marriage with Sempronia, is the occasion of the denomination or relation of husband; and the colour white, the occasion why he is said to be whiter than freestone.

2. *Relations without correlative terms, not easily perceived.*—These, and the like relations, expressed by relative terms, that have others answering them with a reciprocal intimation, as "father and son, bigger and less, cause and effect," are very obvious to every one; and every body, at first sight, perceives the relation. For "father and son, husband and wife," and such other correlative terms, seem so nearly to belong one to another, and, through custom, do so readily chime and answer one to another in people's memories, that, upon the naming of either of them, the thoughts are presently carried beyond the thing so named; and nobody overlooks or doubts of a relation where it is so plainly intimated. But where languages have failed to give correlative names, there the relation is not always so easily taken notice of. "Concubine" is, no doubt, a relative name as well as "wife:" but in languages where this and the like words have not a correlative term, there people are not so apt to take them to be so, as wanting that evident mark of relation which is between correlatives, which seem to explain one another,

and not to be able to exist but together. Hence it is that many of those names which, duly considered, do include evident relations, have been called "external denominations." But all names, that are more than empty sounds, must signify some idea which is either in the thing to which the name is applied; and then it is positive, and is looked on as united to and existing in the thing to which the denomination is given: or else it arises from the respect the mind finds in it to something distinct from it with which it considers it; and then it includes a relation.

3. *Some seemingly absolute terms contain relations.*

— Another sort of relative terms there is, which are not looked on to be either relative or so much as external denominations; which yet, under the form and appearance of signifying something absolute in the subject, do conceal a tacit, though less observable relation. Such are the seemingly positive terms of "old, great, imperfect," &c., whereof I shall have occasion to speak more at large in the following chapters.

4. *Relation different from the things related.*—

This farther may be observed, that the ideas of relation may be the same in men who have far different ideas of the things that are related, or that are thus compared: *v.g.*, those who have far different ideas of a man, may yet agree in the notion of a father: which is a notion superinduced to the substance, or man, and refers only to an act of that thing called "man," whereby he contributed to the generation of one of his own kind, let man be what it will.

5. *Change of relation may be without any change in the subject.*— The nature therefore of relation consists in the referring or comparing two things one to another; from which comparison one or both comes

to be denominated. And if either of those things be removed or cease to be, the relation ceases, and the denomination consequent to it, though the other receive in itself no alteration at all: *v. g.*, Caius, whom I consider to-day as a father ceases to be so to-morrow, only by the death of his son, without any alteration made in himself. Nay, barely by the mind's changing the object, to which it compares any thing, the same thing is capable of having contrary denominations at the same time: *v. g.*, Caius, compared to several persons, may truly be said to be older and younger, stronger and weaker, &c.

6. *Relation only betwixt two things.*—Whatsoever doth or can exist, or be considered as one thing, is positive: and so not only simple ideas and substances, but modes also, are positive beings: though the parts of which they consist are very often relative one to another; but the whole together considered as one thing, and producing in us the complex idea of one thing, which idea is in our minds as one picture, though an aggregate of divers parts and under one name, it is a positive or absolute thing or idea. Thus a triangle, though the parts thereof, compared one to another, be relative, yet the idea of the whole is a positive absolute idea. The same may be said of a family, a tune, &c., for there can be no relation but betwixt two things, considered as two things. There must always be in relation two ideas, or things, either in themselves really separate, or considered as distinct, and then a ground or occasion for their comparison.

7. *All things capable of relation.*—Concerning relation in general, these things may be considered.

First, That there is no one thing, whether simple idea, substance, mode, or relation, or name of either of

them, which is not capable of almost an infinite number of considerations in reference to other things; and therefore this makes no small part of men's thoughts and words: *v. g.*, one single man may at once be concerned in and sustain all these following relations, and many more, *viz.*, father, brother, son, grandfather, grandson, father-in-law, son-in-law, husband, friend, enemy, subject, general, judge, patron, client, professor, European, Englishman, islander, servant, master, possessor, captain, superior, inferior, bigger, less, older, younger, contemporary, like, unlike, &c., to an almost infinite number: he being capable of as many relations as there can be occasions of comparing him to other things, in any manner of agreement, disagreement, or respect whatsoever: for, as I said, relation is a way of comparing or considering two things together, and giving one or both of them some appellation from that comparison, and sometimes giving even the relation itself a name.

8. *The ideas of relations clearer often than of the subjects related.*—Secondly, This farther may be considered concerning relation, that though it be not contained in the real existence of things, but something extraneous and superinduced; yet the ideas which relative words stand for are often clearer and more distinct than of those substances to which they do belong. The notion we have of a father or brother is a great deal clearer and more distinct than that we have of a man: or, if you will, paternity is a thing whereof it is easier to have a clear idea than of humanity: and I can much easier conceive what a friend is than what God. Because the knowledge of one action, or one simple idea, is oftentimes sufficient to give the notion of a relation: but to the knowing of any substantial being, an ac-

curate collection of sundry ideas is necessary. A man, if he compares two things together, can hardly be supposed not to know what it is wherein he compares them: so that when he compares any things together, he cannot but have a very clear idea of that relation. The ideas then of relations are capable at least of being more perfect and distinct in our minds than those of substances. Because it is commonly hard to know all the simple ideas which are really in any substance, but for the most part easy enough to know the simple ideas that make up any relation I think on, or have a name for: *v. g.*, comparing two men, in reference to one common parent, it is very easy to frame the ideas of brothers, without having yet the perfect idea of a man. For, significant relative words, as well as others, standing only for ideas; and those being all either simple, or made up of simple ones; it suffices for the knowing the precise idea the relative term stands for, to have a clear conception of that which is the foundation of the relation; which may be done without having a perfect and clear idea of the thing it is attributed to. Thus having the notion that one laid the egg out of which the other was hatched, I have a clear idea of the relation of dam and chick between the two cas-siowaries in St. James's Park; though, perhaps, I have but a very obscure and imperfect idea of those birds themselves.

9. *Relations all terminate in simple ideas.*—Thirdly, Though there be a great number of considerations wherein things may be compared one with another, and so a multitude of relations; yet they all terminate in, and are concerned about, those simple ideas either of sensation or reflection, which I think to be the whole materials of all our knowledge. To clear this,

I shall show it in the most considerable relations that we have any notion of; and in some that seem to be the most remote from sense of reflection: which yet will appear to have their ideas from thence, and leave it past doubt, that the notions we have of them are but certain simple ideas, and so originally derived from sense or reflection.

10. *Terms leading the mind beyond the subject denominated are relative.*—Fourthly, That relation being the considering of one thing with another, which is extrinsical to it, it is evident that all words that necessarily lead the mind to any other ideas than are supposed really to exist in that thing to which the word is applied, are relative words: *v. g.*, a man, black, merry, thoughtful, thirsty, angry, extended; these and the like are all absolute, because they neither signify nor intimate any thing but what does or is supposed really to exist in the man thus denominated: but father, brother, king, husband, blacker, merrier, &c., are words which, together with the thing they denominate, imply also something else separate, and exterior to the existence of that thing.

11. *Conclusion.*—Having laid down these premises concerning relation in general, I shall now proceed to show in some instances, how all the ideas we have of relation are made up, as the others are, only of simple ideas; and that they all, how refined or remote from sense soever they seem, terminate at last in simple ideas. I shall begin with the most comprehensive relation, wherein all things that do or can exist are concerned; and that is the relation of cause and effect. The idea whereof, how derived from the two fountains of all our knowledge, sensation and reflection, I shall in the next place consider.

CHAPTER XXVI.

OF CAUSE AND EFFECT AND OTHER RELATIONS.

1. *Whence their ideas got.*—In the notice that our senses take of the constant vicissitude of things, we cannot but observe that several particular both qualities and substances begin to exist; and that they receive this their existence from the due application and operation of some other being. From this observation we get our ideas of cause and effect. That which produces any simple or complex idea, we denote by the general name “cause;” and that which is produced, “effect.” Thus finding that in that substance which we call “wax” fluidity, which is a simple idea that was not in it before, is constantly produced by the application of a certain degree of heat, we call the simple idea of heat, in relation to fluidity in wax, *the cause* of it, and fluidity *the effect*. So also finding that the substance, wood, which is a certain collection of simple ideas so called, by the application of fire is turned into another substance called “ashes,” *i. e.*, another complex idea, consisting of a collection of simple ideas, quite different from that complex idea which we call “wood,” we consider fire, in relation to ashes, as cause, and the ashes, as effect. So that whatever is considered by us to conduce or operate to the producing any particular simple idea, or collection of simple ideas, whether substance or mode, which did not before exist, hath thereby in our minds the relation of a cause, and so is denominated by us.

2. *Creation, generation, making, alteration.*—Having thus, from what our senses are able to discover in the operations of bodies on one another, got the

notion of cause and effect, viz., that a cause is that which makes any other thing, either simple idea, substance, or mode, begin to be, and an effect is that which had its beginning from some other thing, the mind finds no great difficulty to distinguish the several originals of things into two sorts:—

First, When the thing is wholly made new, so that no part thereof did ever exist before; as when a new particle of matter doth begin to exist, *in rerum naturâ*, which had before no being: and this we call “creation.”

Secondly, When a thing is made up of particles which did all of them before exist, but that very thing so constituted of pre-existing particles, which, considered all together, make up such a collection of simple ideas, had not any existence before as this man, this egg, rose, or cherry, &c. And this, when referred to a substance produced in the ordinary course of nature by an internal principle, but set on work by and received from some external agent or cause, and working by insensible ways which we perceive not, we call “generation.” When the cause is extrinsical, and the effect produced by a sensible separation or juxtaposition of discernible parts, we call it “making;” and such are all artificial things. When any simple idea is produced which was not in that subject before, we call it “alteration.” Thus a man is generated, a picture made, and either of them altered, when any new sensible quality or simple idea is produced in either of them, which was not there before; and the things thus made to exist, which were not there before, are effects; and those things which operated to the existence, causes. In which, and all other cases, we may observe, that the notion of cause and effect has its rise from ideas received by sensation or

reflection; and that this relation, how comprehensive soever, terminates at last in them. For, to have the idea of cause and effect, it suffices to consider any simple idea or substance as beginning to exist by the operation of some other, without knowing the manner of that operation.

3. *Relations of time.*—Time and place are also the foundations of very large relations, and all finite beings at least are concerned in them. But having already shown in another place how we get those ideas, it may suffice here to intimate, that most of the denominations of things received from time are only relations: thus, when any one says that “queen Elizabeth lived sixty-nine, and reigned forty-five, years,” these words import only the relation of that duration to some other, and mean no more but this, that the duration of her existence was equal to sixty-nine, and the duration of her government to forty-five, annual revolutions of the sun; and so are all words, answering, *how long?* Again: “William the Conqueror invaded England about the year 1066,” which means this,—that, taking the duration from our Saviour’s time till now for one entire great length of time, it shows at what distance this invasion was from the two extremes: and so do all words of time, answering to the question *when*, which show only the distance of any point of time, from the period of a longer duration, from which we measure, and to which we thereby consider it as related.

4. There are yet, besides those, other words of time that ordinarily are thought to stand for positive ideas, which yet will, when considered, be found to be relative, such as are “young, old,” &c., which include and intimate the relation any thing has to a certain

length of duration, whereof we have the idea in our minds. Thus having settled in our thoughts the idea of the ordinary duration of a man to be seventy years, when we say a man is young, we mean that his age is yet but a small part of that which usually men attain to: and when we denominate him “old,” we mean that his duration is run out almost to the end of that which men do not usually exceed. And so it is but comparing the particular age or duration of this or that man to the idea of that duration which we have in our minds, as ordinarily belonging to that sort of animals: which is plain in the application of these names to other things; for a man is called “young” at twenty years, and “very young” at seven years, old: but yet a horse we call “old” at twenty, and a dog at seven, years; because in each of these we compare their age to different ideas of duration, which are settled in our mind as belonging to these several sorts of animals, in the ordinary course of nature. But the sun and stars, though they have outlasted several generations of men, we call not “old,” because we do not know what period God hath set to that sort of beings: this term belonging properly to those things which we can observe, in the ordinary course of things, by a natural decay, to come to an end in a certain period of time: and so have in our minds, as it were, a standard, to which we can compare the several parts of their duration; and by the relation they bear thereunto, call them young or old; which we cannot therefore do to a ruby or a diamond, things whose usual periods we know not.

5. *Relations of place and extension.*—The relation also that things have to one another in their places and distances, is very obvious to observe; as

“above, below, a mile distant from Charing-Cross, in England, and in London.” But as in duration, so in extension and bulk, there are some ideas that are relative, which we signify by names that are thought positive; as “great” and “little” are truly relations. For here also, having by observation settled in our mind the ideas of the bigness of several species of things from those we have been most accustomed to, we make them, as it were, the standards whereby to denominate the bulk of others. Thus we call “a great apple,” such a one as is bigger than the ordinary sort of those we have been used to: and “a little horse,” such a one as comes not up to the size of that idea which we have in our minds to belong ordinarily to horses: and that will be a great horse to a Welshman, which is but a little one to a Fleming; they too having, from the different breed of their countries, taken several-sized ideas to which they compare, and in relation to which they denominate, their “great” and their “little.”

6. *Absolute terms often stand for relations.*—So likewise “weak” and “strong” are but relative denominations of power, compared to some ideas we have at that time of greater or less power. Thus when we say “a weak man,” we mean one that has not so much strength or power to move as usually men have, or usually those of his size have; which is a comparing his strength to the idea we have of the usual strength of men, or men of such a size. The like when we say, “The creatures are all weak things;” “weak,” there, is but a relative term, signifying the disproportion there is in the power of God and the creatures. And so abundance of words, in ordinary speech, stand only for relations, (and perhaps

the greatest part), which at first sight seem to have no such signification: *v. g.*, "The ship has necessary stores." "Necessary" and "stores," are both relative words; one having a relation to the accomplishing the voyage intended, and the other to future use. All which relations, how they are confined to and terminate in ideas derived from sensation or reflection, is too obvious to need any explication.

CHAPTER XXVII.

[OF IDENTITY AND DIVERSITY.]

I. [*Wherein identity consists.*—Another occasion the mind often takes of comparing, is, the very being of things, when, considering any thing as existing at any determined time and place, we compare it with itself existing at another time, and thereon form the ideas of identity and diversity. When we see any thing to be in any place in any instant of time, we are sure (be it what it will) that it is that very thing, and not another, which at that same time exists in another place, how like and undistinguishable soever it may be in all other respects: and in this consists identity, when the ideas it is attributed to, vary not at all from what they were that moment wherein we consider their former existence, and to which we compare the present. For we never finding, nor conceiving it possible, that two things of the same kind should exist in the same place at the same time, we rightly conclude that whatever exists any where at any time, excludes all of the same kind, and is there itself alone. When therefore we demand whether any thing be the same or no? it refers always to something that existed

such a time in such a place, which it was certain at that instant was the same with itself and no other: from whence it follows, that one thing cannot have two beginnings of existence, nor to things one beginning, it being impossible for two things of the same kind to be or exist in the same instant, in the very same place, or one and the same thing in different places. That therefore that had one beginning, is the same thing; and that which had a different beginning in time and place from that, is not the same, but diverse. That which has made the difficulty about this relation, has been the little care and attention used in having precise notions of the things to which it is attributed.

2. *Identity of substances. Identity of modes.*—We have the ideas but of three sorts of substances: 1. God. 2. Finite intelligences. 3. Bodies. First. God is without beginning, eternal, unalterable, and every where; and therefore concerning his identity, there can be no doubt. Secondly. Finite spirits having had each its determinate time and place of beginning to exist, the relation to that time and place will always determine to each of them its identity as long as it exists. Thirdly. The same will hold of every particle of matter, to which no addition or subtraction of matter being made, it is the same. For though these three sorts of substances, as we term them, do not exclude one another out of the same place: yet we cannot conceive but that they must necessarily each of them exclude any of the same kind out of the same place: or else the notions and names of “identity and diversity” would be in vain, and there could be no such distinctions of substances, or any thing else, one from another. For example: Could two bodies be in

the same place at the same time, then those two parcels of matter must be one and the same, take them great or little; nay, all bodies must be one and the same. For by the same reason that two particles of matter may be in one place, all bodies may be in one place: which, when it can be supposed, takes away the distinction of identity and diversity, of one and more, and renders it ridiculous. But, it being a contradiction that two or more should be one, identity and diversity are relations and ways of comparing well-founded, and of use to the understanding. All other things being but modes or relations ultimately terminated in substances, the identity and diversity of each particular existence of them too will be by the same way determined: only as to things whose existence is in succession, such as are the actions of finite beings, *v. g.*, motion and thought, both which consist in a continued train of succession, concerning their diversity there can be no question: because, each perishing the moment it begins, they cannot exist in different times, or in different places, as permanent beings can at different times exist in distant places; and therefore no motion or thought, considered as at different times, can be the same, each part thereof having a different beginning of existence.

3. *Principium individuationis*.—From what has been said, it is easy to discover, what is so much inquired after, the *principium individuationis*; and that, it is plain, is existence itself, which determines a being of any sort to a particular time and place incommunicable to two beings of the same kind. This, though it seems easier to conceive in simple substances or modes, yet, when reflected on, is not more difficult in compound ones, if care be taken to what it is ap-

plied; *v. g.*, let us suppose an atom, *i. e.*, a continued body under one immutable superficies, existing in a determined time and place; it is evident, that, considered in any instant of its existence, it is, in that instant, the same with itself. For, being at that instant what it is and nothing else, it is the same, and so must continue as long as its existence is continued; for so long it will be the same and no other. In like manner, if two or more atoms be joined together into the same mass, every one of those atoms will be the same, by the foregoing rule: and whilst they exist united together, the mass, consisting of the same atoms, must be the same mass, or the same body, let the parts be ever so differently jumbled: but if one of these atoms be taken away, or one new one added, it is no longer the same mass, or the same body. In the state of living creatures, their identity depends not on a mass of the same particles, but on something else. For in them the variation of great parcels of matter alters not the identity; an oak, growing from a plant to a great tree, and then lopped, is still the same oak: and a colt, grown up to a horse, sometimes fat, sometimes lean, is all the while the same horse: though, in both these cases, there may be a manifest change of the parts; so that truly they are not either of them the same masses of matter, though there be truly one of them the same oak, and the other the same horse. The reason whereof is, that, in these two cases of a mass of matter and a living body, identity is not applied to the same thing.

4. *Identity of vegetables.*—We must therefore consider wherein an oak differs from a mass of matter; and that seems to me to be in this: That the one is only the cohesion of particles of matter any how

united: the other such a disposition of them as constitutes the parts of an oak, and such an organization of those parts as is fit to receive and distribute nourishment, so as to continue and frame the wood, bark, and leaves, &c., of an oak, in which consists the vegetable life. That being then one plant which has such an organization of parts in one coherent body, partaking of one common life, it continues to be the same plant as long as it partakes of the same life, though that life be communicated to new particles of matter vitally united to the living plant in a like continued organization, conformable to that sort of plants. For this organization being at any one instant in any one collection of matter, is in that particular concrete distinguished from all other, and is that individual life which existing constantly from that moment both forwards and backwards, in the same continuity of insensibly succeeding parts united to the living body of the plant, it has that identity which makes the same plant, and all the parts of it parts of the same plant, during all the time that they exist united in that continued organization, which is fit to convey that common life to all the parts so united.

5. *Identity of animals.*—The case is not so much different in brutes, but that any one may hence see what makes an animal, and continues it the same. Something we have like this in machines, and may serve to illustrate it. For example: what is a watch? It is plain it is nothing but a fit organization or construction of parts to a certain end, which, when a sufficient force is added to it, it is capable to attain. If we would suppose this machine one continued body, all whose organized parts were repaired, increased, or diminished, by a constant addition or separation of in-

sensible parts, with one common life, we should have something very much like the body of an animal, with this difference,—that in an animal the fitness of the organization, and the motion wherein life consists, begin together, the motion coming from within; but in machines, the force coming sensibly from without, is often away when the organ is in order, and well fitted to receive it.

6. *Identity of man.*—This also shows wherein the identity of the same man consists; viz., in nothing but a participation of the same continued life by constantly fleeting particles of matter, in succession vitally united to the same organized body. He that shall place the identity of man in any thing else but, like that of other animals, in one fitly organized body, taken in any one instant, and from thence continued under one organization of life in several successively fleeting particles of matter united to it, will find it hard to make an embryo, one of years, mad, and sober, the same man, by any supposition that will not make it possible for Seth, Ismael, Socrates, Pilate, St. Austin, and Cæsar Borgia, to be the same man. For if the identity of soul alone makes the same man, and there be nothing in the nature of matter why the same individual spirit may not be united to different bodies it will be possible that those men living in distant ages, and of different tempers, may have been the same man: which way of speaking must be from a very strange use of the word “man,” applied to an idea out of which body and shape is excluded: and that way of speaking would agree yet worse with the notions of those philosophers who allow of transmigration, and are of opinion that the souls of men may, for their miscarriages, be de-truded into the bodies of beasts, as fit habitations, with

organs suited to the satisfaction of their brutal inclinations. But yet, I think, nobody could be sure that the soul of Heliogabalus were in one of his hogs, would yet say that hog were a man or Heliogabalus.

7. *Identity suited to the idea.*—It is not therefore unity of substance that comprehends all sorts of identity, or will determine it in every case: but, to conceive and judge of it aright, we must consider what idea the word it is applied to stands for: it being one thing to be the same substance, another the same man, and a third the same person, if “person, man, and substance,” are three names standing for three different ideas; for such as is the idea belonging to that name, such must be the identity: which, if it had been a little more carefully attended to, would possibly have prevented a great deal of that confusion which often occurs about this matter, with no small seeming difficulties, especially concerning personal identity, which therefore we shall in the next place a little consider.

8. *Same man.*—An animal is a living organized body; and consequently the same animal, as we have observed, is the same continued life communicated to different particles of matter, as they happen successively to be united to that organized living body. And, whatever is talked of other definitions, ingenious observations puts it past doubt, that the idea in our minds, of which the sound “man,” in our mouths is the sign, is nothing else but of an animal of such a certain form: since I think I may be confident, that whoever should see a creature of his own shape or make, though it had no more reason all its life than a cat or a parrot, would call him still a “man;” or whoever should hear a cat or a parrot discourse, reason, and philosophize, would call or think it noth-

ing but a cat or a parrot; and say, the one was a dull irrational man, and the other a very intelligent rational parrot. A relation we have in an author of great note, is sufficient to countenance the supposition of, a rational parrot. [A relation we have in an author of great note, is sufficient to countenance the supposition rational parrot. His words are,—

“ I had a mind to know from prince Maurice’s own mouth, the account of a common, but much credited story, that I had heard so often from many others of an old parrot he had in Brazil, during his government there, that spoke, and asked and answered common questions, like a reasonable creature; so that those of his train there generally concluded it to be witchery or possession; and one of his chaplains who lived long afterwards in Holland, would never from that time endure a parrot, but said they all had a devil in them. I had heard many particulars of this story, and assevered by people hard to be discredited, which made me ask prince Maurice what there was of it. He said, with his usual plainness and dryness in talk, there was something true, but a great deal false, of what had been reported. I desired to know of him what there was of the first? He told me short and coldly, that he had heard of such an old parrot when he had been at Brazil; and though he believed nothing of it, and it was a good way off, yet he had so much curiosity as to send for it: that it was a very great and a very old one; and when it came first into the room where the prince was, with a great many Dutchmen about him, it said presently, ‘What a company of white men are here?’ They asked it what he thought that man was, pointing at the prince? It answered, ‘Some general or other.’ When they brought it close to him, he

asked it, *D'où venez-vous?* It answered, *De Marinnan*. The prince,—*A qui estes-vous?* The parrot,—*A un Portugais*. Prince,—*Que fais-tu là?* Parrot,—*Je garde les poules*. The prince laughed, and said, *Vous gardez les poules?* The parrot answered, *Ouy, moy, et je sçai bien faire*; and made the chuck four or five times that people use to make to chickens when they call them.* I set down the words of this worthy dialogue in French, just as prince Maurice said them to me. I asked him in what language the parrot spoke? and he said, In Brazilian; I asked whether he understood Brazilian? He said, No: but he had taken care to have two interpreters by him, the one a Dutchman that spoke Brazilian, and the other a Brazilian that spoke Dutch; that he asked them separately and privately, and both of them agreed in telling him just the same thing that the parrot had said. I could not but tell this odd story, because it is so much out of the way, and from the first hand, and what may pass for a good one; for I dare say this prince, at least, believed himself in all he told me, having ever passed for a very honest and pious man. I leave it to naturalists to reason, and to other men to believe, as they please upon it; however, it is not perhaps amiss to relieve or enliven a busy scene sometimes with such digressions, whether to the purpose or no.”†

I have taken care that the reader should have the

* “‘Whence came ye?’ It answered, ‘From Marinnan.’ The PRINCE,—‘To whom do you belong?’ The PARROT,—‘To a Portuguese.’ PRINCE,—‘What do you there?’ PARROT,—‘I look after the chickens.’ The PRINCE laughed and said, ‘You look after the chickens?’ The PARROT answered, ‘Yes, I, and I know well enough how to do it.’”

† “Memoirs of what passed in Christendom, from 1672 to 1679.”

story at large in the author's own words, because he seems to me not to have thought it incredible; for it cannot be imagined that so able a man as he, who had sufficiency enough to warrant all the testimonies he gives of himself, should take so much pains, in a place where it had nothing to do, to pin so close — not only on a man whom he mentions as his friend, but on a prince, in whom he acknowledges very great honesty and piety — a story which, if he himself thought incredible, he could not but also think ridiculous. The prince, it is plain, who vouches this story, and our author, who relates it from him, both of them call this talker “a parrot;” and I ask any one else, who thinks such a story fit to be told, whether if this parrot, and all of its kind, had always talked, as we have a prince's word for it, as this one did; whether, I say, they would not have passed for a race of rational animals; but yet whether for all that, they would have been allowed to be men, and not parrots?] For I presume it is not the idea of a thinking or rational being alone that makes the idea of a man in most people's sense, but of a body, so and so shaped, joined to it; and if that be the idea of a man, the same successive body not shifted all at once must, as well as the same immaterial spirit, go to the making of the same man.

9. *Personal identity*.— This being premised, to find wherein personal identity consists, we must consider what “person” stands for; which I think, is a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places; which it does only by that consciousness which is inseparable from thinking, and it seems to me essential to it: it being impossible for any one to perceive, without perceiving that he

does perceive. When we see, hear, smell, taste, feel, meditate, or will any thing, we know that we do so. Thus it is always as to our present sensations and perceptions: and by this every one is to himself that which he calls "self;" it not being considered, in this case, whether the same self be continued in the same or diverse substances. For since consciousness always accompanies thinking, and it is that that makes every one to be what he calls "self," and thereby distinguishes himself from all other thinking things; in this alone consists personal identity, *i.e.*, the sameness of a rational being: and as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that person; it is the same self now it was then; and it is by the same self with this present one that now reflects on it, that that action was done.

10. *Consciousness makes personal identity.*— But it is farther inquired, whether it be the same identical substance? This, few would think they had reason to doubt of, if these perceptions, with their consciousness, always remained present in the mind, whereby the same thinking thing would be always consciously present, and, as would be thought, evidently the same to itself. But that which seems to make the difficulty is this, that this consciousness being interrupted always by forgetfulness, there being no moment of our lives wherein we have the whole train of all our past actions before our eyes in one view; but even the best memories losing the sight of one part whilst they are viewing another; and we sometimes, and that the greatest part of our lives, not reflecting on our past selves, being intent on our present thoughts, and, in sound sleep, having no thoughts at all, or, at least, none with

that consciousness which remarks our waking thoughts: I say, in all these cases, our consciousness being interrupted, and we losing the sight of our past selves, doubts are raised whether we are the same thinking thing, *i. e.*, the same substance, or no? which, however reasonable or unreasonable, concerns not personal identity at all: the question being, what makes the same person? and not, whether it be the same identical substance which always thinks in the same person? which in this case matters not at all; different substances, by the same consciousness (where they do partake in it), being united into one person, as well as different bodies by the same life are united into one animal, whose identity is preserved, in that change of substances, by the unity of one continued life. For it being the same consciousness that makes a man be himself to himself, personal identity depends on that only, whether it be annexed solely to one individual substance, or can be continued in a succession of several substances. For as far as any intelligent being can repeat the idea of any past action with the same consciousness it had of it at first, and with the same consciousness it has of any present action; so far it is the same personal self. For it is by the consciousness it has of its present thoughts and actions that it is self to itself now, and so will be the same self, as far as the same consciousness can extend to actions past or to come; and would be by distance of time, or change of substance, no more two persons than a man be two men, by wearing other clothes to-day than he did yesterday, with a long or short sleep between: the same consciousness uniting those distant actions into the same person, whatever substances contributed to their production.

II. *Personal identity in change of substances.*—That this is so, we have some kind of evidence in our very bodies, all whose particles — whilst vitally united to this same thinking conscious self, so that we feel when they are touched, and are affected by and conscious of good or harm that happens to them — are a part of ourselves; *i. e.*, of our thinking conscious self. Thus the limbs of his body is to every one a part of himself: he sympathises and is concerned for them. Cut off an hand and thereby separate it from that consciousness he had of its heat, cold, and other affections, and it is then no longer a part of that which is himself, any more than the remotest part of matter. Thus we see the substance, whereof personal self consisted at one time, may be varied at another, without the change of personal identity; there being no question about the same person, though the limbs, which but now were a part of it, be cut off.

12. *Whether in the change of thinking substances.* — But the question is, Whether, if the same substance which thinks be changed, it can be the same person, or remaining the same, it can be different persons?

And to this I answer, First, This can be no question at all to those who place thought in a purely material, animal constitution, void of an immaterial substance. For, whether their supposition be true or no, it is plain they conceive personal identity preserved in something else than identity of substance; as animal identity is preserved in identity of life, and not of substance. And therefore those who place thinking in an immaterial substance only, before they can come to deal with these men, must show why personal identity cannot be preserved in the change of immaterial substances, or variety of particular immaterial substances,

as well as animal identity is preserved in the change of material substances, or variety of particular bodies: unless they will say, it is one immaterial spirit that makes the same life in brutes, as it is one immaterial spirit that makes the same person in men, which the Cartesians at least will not admit, for fear of making brutes thinking things too.

13. But next, as to the first part of the question, Whether, if the same thinking substance (supposing immaterial substances only to think) be changed, it can be the same person? I answer, That cannot be resolved but by those who know what kind of substances they are that do think, and whether the consciousness of past actions can be transferred from one thinking substance to another. I grant, were the same consciousness the same individual action, it could not; but it being but a present representation of a past action, why it may not be possible that *that* may be represented to the mind to have been *which* really never was, will remain to be shown. And therefore how far the consciousness of past actions is annexed to any individual agent, so that another cannot possibly have it, will be hard for us to determine, till we know what kind of action it is that cannot be done without a reflex act of perception accompanying it, and how performed by thinking substances who cannot think without being conscious of it. But that which we call "the same consciousness" not being the same individual act, why one intellectual substance may not have represented to it as done by itself what it never did, and was perhaps done by some other agent; why, I say, such a representation may not possibly be without reality of matter of fact, as well as several representations in dreams are, which yet, whilst

dreaming, we take for true, will be difficult to conclude from the nature of things. And that it never is so, will by us (till we have clearer views of the nature of thinking substances) be best resolved into the goodness of God, who, as far as the happiness or misery of any of his sensible creatures is concerned in it, will not by a fatal error of theirs transfer from one to another that consciousness which draws reward or punishment with it. How far this may be an argument against those who would place thinking in a system of fleeting animal spirits, I leave to be considered. But yet, to return to the question before us, it must be allowed, that if the same consciousness (which, as has been shown, is quite a different thing from the same numerical figure or motion in body) can be transferred from one thinking substance to another, it will be possible that two thinking substances may make but one person. For the same consciousness being preserved, whether in the same or different substances, the personal identity is preserved.

14. As to the second part of the question, Whether, the same immaterial substance remaining, there may be two distinct persons? Which question seems to me to be built on this, Whether the same immaterial being, being conscious of the action of its past duration, may be wholly stripped of all the consciousness of its past existence, and lose it beyond the power of ever retrieving it again; and so, as it were, beginning a new account from a new period, have a consciousness that cannot reach beyond this new state? All those who hold pre-existence are evidently of this mind, since they allow the soul to have no remaining consciousness of what it did in that pre-existent state, either wholly separate from body, or informing any other body; and

if they should not, it is plain experience would be against them. So that personal identity reaching no farther than consciousness reaches, a pre-existent spirit not having continued so many ages in a state of silence, must needs make different persons. Suppose a Christian, Platonist, or a Pythagorean, should, upon God's having ended all his works of creation the seventh day, think his soul hath existed ever since; and should imagine it has revolved in several human bodies, as I once met with one who was persuaded his had been the soul of Socrates: (how reasonably I will not dispute: this I know, that in the post he filled, which was no inconsiderable one, he passed for a very rational man; and the press has shown that he wanted not parts or learning:) would any one say, that he, being not conscious of any of Socrates's actions or thoughts, could be the same person with Socrates? Let any one reflect upon himself, and conclude, that he has in himself an immaterial spirit, which is that which thinks in him, and in the constant change of his body keeps him the same; and is that which he calls himself: let him also suppose it to be the same soul that was in Nestor or Thersites, at the siege of Troy, (for souls being, as far as we know any thing of them, in their nature indifferent to any parcel of matter, the supposition has no apparent absurdity in it), which it may have been as well as it is now the soul of any other man: but he now having no consciousness of any of the actions either of Nestor or Thersites, does or can he conceive himself the same person with either of them? Can he be concerned in either of their actions? attribute them to himself, or think them his own, more than the actions of any other man that ever existed? So that this consciousness not reaching to

any of the actions of either of those men, he is no more one self with either of them, than if the soul or immaterial spirit that now informs him had been created and began to exist when it began to inform his present body, though it were never so true that the same spirit that informed Nestor's or Thersites's body were numerically the same that now informs his. For this would no more make him the same person with Nestor, than if some of the particles of matter that were once a part of Nestor were now a part of this man; the same immaterial substance, without the same consciousness, no more making the same person by being united to any body, than the same particle of matter, without consciousness, united to any body, makes the same person. But let him once find himself conscious of any of the actions of Nestor, he then finds himself the same person with Nestor.

15. And thus we may be able, without any difficulty, to conceive the same person at the resurrection, though in a body not exactly in make or parts the same which he had here, the same consciousness going along with the soul that inhabits it. But yet the soul alone, in the change of bodies, would scarce to any one, but to him that makes the soul the man, be enough to make the same man. For, should the soul of a prince, carrying with it the consciousness of the prince's past life, enter and inform the body of a cobbler, as soon as deserted by his own soul, every one sees he would be the same person with the prince, accountable only for the prince's actions: but who would say it was the same man? The body too goes to the making of the man, and would, I guess, to every body determine the man in this case, wherein the soul, with all its princely thoughts about it, would

not make another man; but he would be the same cobbler to every one besides himself. I know that, in the ordinary way of speaking, the same person and the same man stand for one and the same thing. And, indeed, every one will always have a liberty to speak as he pleases, and to apply what articulate sounds to what ideas he thinks fit, and change them as often as he pleases. But yet, when we will inquire what makes the same spirit, man, or person, we must fix the ideas of spirit, man, or person in our minds; and having resolved with ourselves what we mean by them, it will not be hard to determine in either of them, or the like, when it is the same and when not.

16. *Consciousness makes the same person.*—But though the same immaterial substance or soul does not alone, wherever it be, and in whatsoever state, make the same man; yet it is plain, consciousness, as far as ever it can be extended, should it be to ages past, unites existences and actions, very remote in time, into the same person, as well as it does the existences and actions of the immediately preceding moment: so that whatever has the consciousness of present and past actions is the same person to whom they both belong. Had I the same consciousness that I saw the ark and Noah's flood, as that I saw an overflowing of the Thames last winter, or as that I write now, I could no more doubt that I who write this now, that saw the Thames overflowed last winter, and that viewed the flood at the general deluge, was the same self, place that self in what substance you please, than that I who write this am the same myself now whilst I write (whether I consist of all the same substance, material or immaterial, or no) that I was yesterday. For, as to this point of being the same self, it matters

not whether this present self be made up of the same or other substances, I being as much concerned and as justly accountable for any action was done a thousand years since, appropriated to me now by this self-consciousness, as I am for what I did the last moment.

17. *Self depends on consciousness.*—Self is that conscious thinking thing (whatever substance made up of, whether spiritual or material, simple or compounded, it matters not) which is sensible or conscious of pleasure and pain, capable of happiness or misery, and so is concerned for itself, as far as that consciousness extends. Thus every one finds, that whilst comprehended under that consciousness, the little finger is as much a part of himself as what is most so. Upon separation of this little finger, should this consciousness go along with the little finger, and leave the rest of the body, it is evident the little finger would be the person, the same person; and self then would have nothing to do with the rest of the body. As in this case it is the consciousness that goes along with the substance, when one part is separate from another, which makes the same person, and constitutes this inseparable self, so it is in reference to substances remote in time. That with which the consciousness of this present thinking thing can join itself makes the same person, and is one self with it, and with nothing else; and so attributes to itself and owns all the actions of that thing as its own, as far as that consciousness reaches, and no farther; as every one who reflects will perceive.

18. *Object of reward and punishment.*—In this personal identity is founded all the right and justice of reward and punishment; happiness and misery

being that for which every one is concerned for himself, not mattering what becomes of any substance not joined to or affected with that consciousness. For as it is evident in the instance I gave but now, if the consciousness went along with the little finger when it was cut off, that would be the same self which was concerned for the whole body yesterday, as making a part of itself, whose actions then it cannot but admit as its own now. Though, if the same body should still live, and immediately from the separation of the little finger have its own peculiar consciousness, whereof the little finger knew nothing, it would not at all be concerned for it, as a part of itself, or could own any of its actions, or have any of them imputed to him.

19. This may show us wherein personal identity consists, not in the identity of substance, but, as I have said, in the identity of consciousness; wherein if Socrates and the present mayor of Queinborough agree, they are the same person. If the same Socrates waking and sleeping do not partake of the same consciousness, Socrates waking and sleeping is not the same person; and to punish Socrates waking for what sleeping Socrates thought, and waking Socrates was never conscious of, would be no more of right than to punish one twin for what his brother-twin did, whereof he knew nothing, because their outsides were so like that they could not be distinguished; for such twins have been seen.

20. But yet possibly it will still be objected, "Suppose I wholly lose the memory of some parts of my life, beyond the possibility of retrieving them so that perhaps I shall never be conscious of them again; yet am I not the same person that did those actions, had those thoughts, that I was once conscious of, though I

have now forgot them?" To which I answer, That we must here take notice what the word "I" is applied to; which in this case, is the man only. And the same man being presumed to be the same person, "I" is easily here supposed to stand also for the same person. But if it be possible for the same man to have distinct incommunicable consciousnesses at different times, it is past doubt the same man would at different times make different persons; which, we see, is the sense of mankind in the solemnest declaration of their opinions, human laws not punishing the mad man for the sober man's actions, nor the sober man for what the mad man did, thereby making them two persons; which is somewhat explained by our way of speaking in English, when we say, "Such an one is not himself, or is beside himself;" in which phrases it is insinuated as if those who now or, at least, first used them, thought that self was changed, the self-same person was no longer in that man.

21. *Difference between identity of man and person.*

— But yet it is hard to conceive that Socrates, the same individual man, should be two persons. To help us a little in this, we must consider what is meant by Socrates, or the same individual man.

First, It must be either the same individual, immaterial, thinking substance: in short, the same numerical soul, and nothing else.

Secondly, Or the same animal, without any regard to an immaterial soul.

Thirdly, Or the same immaterial spirit united to the same animal.

Now, take which of these suppositions you please, it is impossible to make personal identity to consist in

any thing but consciousness, or reach any farther than that does.

For by the first of them, it must be allowed possible that a man born of different women, and in distant times, may be the same man. A way of speaking which, whoever admits, must allow it possible for the same man to be two distinct persons, as any two that have lived in different ages, without the knowledge of one another's thoughts.

By the second and third, Socrates in this life and after it cannot be the same man any way but by the same consciousness; and so, making human identity to consist in the same thing wherein we place personal identity, there will be no difficulty to allow the same man to be the same person. But then they who place human identity in consciousness only, and not in something else, must consider how they will make the infant Socrates the same man with Socrates after the resurrection. But whatsoever to some men makes a man, and consequently the same individual man, wherein perhaps few are agreed, personal identity can by us be placed in nothing but consciousness (which is that alone which makes what we call "self"), without involving us in great absurdities.

22. "But is not a man drunk and sober the same person? Why else is he punished for the fact he commits when drunk, though he be never afterwards conscious of it?" Just as much the same person as a man that walks and does other things in his sleep is the same person, and is answerable for any mischief he shall do in it. Human laws punish both with a justice suitable to their way of knowledge; because in these cases they cannot distinguish certainly what is real, what counterfeit; and so the ignorance in drunk-

eness or sleep is not admitted as a plea. [For, though punishment be annexed to personality, and personality to consciousness, and the drunkard perhaps be not conscious of what he did; yet human judicatures justly punish him, because the fact is proved against him, but want of consciousness cannot be proved for him.] But in the great day, wherein the secrets of all hearts shall be laid open, it may be reasonable to think, no one shall be made to answer for what he knows nothing of; but shall receive his doom, his conscience accusing or excusing.

23. *Consciousness alone makes self.*—Nothing but consciousness can unite remote existences into the same person; the identity of substance will not do it. For, whatever substance there is, however framed, without consciousness there is no person: and a carcass may be a person, as well as any sort of substance be so without consciousness.

Could we suppose two distinct incommunicable consciousnesses acting the same body, the one constantly by day, the other by night; and, on the other side, the same consciousness acting by intervals two distinct bodies: I ask, in the first case, whether the day and the night man would not be two as distinct persons as Socrates and Plato? and whether, in the second case, there would not be one person in two distinct bodies, as much as one man is the same in two distinct clothings? Nor is it at all material to say, that this same and this distinct consciousness, in the cases above mentioned, is owing to the same and distinct immaterial substances, bringing it with them to those bodies; which, whether true or no, alters not the case: since it is evident the personal identity would equally be determined by the consciousness, whether that consciousness were an-

nexed to some individual immaterial substance or no. For, granting that the thinking substance in man must be necessarily supposed immaterial, it is evident that immaterial thinking thing may sometimes part with its past consciousness, and be restored to it again, as appears in the forgetfulness men often have of their past actions, and the mind many times recovers the memory of a past consciousness which it had lost for twenty years together. Make these intervals of memory and forgetfulness to take their turns regularly by day and night, and you have two persons with the same immaterial spirit, as much as in the former instance two persons with the same body. So that self is not determined by identity or diversity of substance, which it cannot be sure of, but only by identity of consciousness.

24. Indeed, it may conceive the substance whereof it is now made up to have existed formerly, united in the same conscious being: but, consciousness removed, that substance is no more itself, or makes no more a part of it, than any other substance; as is evident in the instance we have already given of a limb cut off, of whose heat, or cold, or other affections, having no longer any consciousness, it is no more of a man's self than any other matter of the universe. In like manner it will be in reference to any immaterial substance, which is void of that consciousness whereby I am myself to myself: [if there be any part of its existence which] I cannot upon recollection join with that present consciousness whereby I am now myself, it is in that part of its existence no more myself than any other immaterial being. For, whatsoever any substance has thought or done, which I cannot recollect, and by my consciousness make my own thought and action, it

will no more belong to me, whether a part of me thought or did it, than if it had been thought or done by any other immaterial being any where existing.

25. I agree, the more probable opinion is, that this consciousness is annexed to, and the affection of, one individual immaterial substance.

But let men, according to their diverse hypotheses, resolve of that as they please. This every intelligent being, sensible of happiness or misery, must grant, that there is something that is himself that he is concerned for, and would have happy; that this self has existed in a continued duration more than one instant, and therefore it is possible may exist, as it has done, months and years to come, without any certain bounds to be set to its duration; and may be the same self, by the same consciousness, continued on for the future. And thus, by this consciousness, he finds himself to be the same self which did such or such an action some years since, by which he comes to be happy or miserable now. In all which account of self, the same numerical substance is not considered as making the same self: but the same continued consciousness, in which several substances may have been united, and again separated from it, which, whilst they continued in a vital union with that wherein this consciousness then resided, made a part of that same self. Thus any part of our bodies vitally united to that which is conscious in us, makes a part of ourselves: but upon separation from the vital union by which that consciousness is communicated, that which a moment since was part of ourselves is now no more so than a part of another man's self is a part of me, and it is not impossible but in a little time may become a real part of another person. And so we have the same numerical substance become a part of two

different persons, and the same person preserved under the change of various substances. Could we suppose any spirit wholly stripped of all its memory or consciousness of past actions, as we find our minds always are of a great part of ours, and sometimes of them all, the union or separation of such a spiritual substance would make no variation of personal identity, any more than that of any particle of matter does. Any substance vitally united to the present thinking being, is a part of that very same self which now is: any thing united to it by a consciousness of former actions, makes also a part of the same self, which is the same both then and now.

26. "*Person*," a forensic term.—"Person," as I take it, is the name for this self. Wherever a man finds what he calls "himself," there, I think, another may say is the same person. It is a forensic term appropriating actions and their merit; and so belongs only to intelligent agents capable of a law, and happiness and misery. This personality extends itself beyond present existence to what is past, only by consciousness; whereby it becomes concerned and accountable, owns and imputes to itself past actions, just upon the same ground and for the same reason as it does the present. All which is founded in a concern for happiness, the unavoidable concomitant of consciousness; that which is conscious of pleasure and pain desiring that *that* self that is conscious should be happy. And therefore whatever past actions it cannot reconcile or appropriate to that present self by consciousness, it can be no more concerned in, than if they had never been done: and to receive pleasure or pain, *i. e.*, reward or punishment, on the account of any such action, is all one as to be made happy or miserable in its first

being without any demerit at all. For, supposing a man punished now for what he had done in another life, whereof he could be made to have no consciousness at all, what difference is there between that punishment and being created miserable? And therefore, conformable to this, the apostle tells us, that at the great day, when every one shall "receive according to his doings, the secrets of all hearts shall be laid open." The sentence shall be justified by the consciousness all persons shall have that they themselves, in what bodies soever they appear, or what substances soever that consciousness adheres to, are the same that committed those actions, and deserve that punishment for them.

27. I am apt enough to think I have, in treating of this subject, made some suppositions that will look strange to some readers, and possibly they are so in themselves. But yet, I think, they are such as are pardonable in this ignorance we are in of the nature of that thinking thing that is in us, and which we look on as ourselves. Did we know what it was, or how it was tied to a certain system of fleeting animal spirits; or whether it could or could not perform its operations of thinking and memory out of a body organized as ours is; and whether it has pleased God that no one such spirit shall ever be united to any but one such body, upon the right constitution of whose organs its memory should depend, we might see the absurdity of some of those suppositions I have made. But taking, as we ordinarily now do (in the dark concerning these matters), the soul of a man for an immaterial substance, independent from matter, and indifferent alike to it all, there can from the nature of things be no absurdity at all to suppose that the same soul may, at different times, be united to different bodies, and with them

make up, for that time, one man; as well as we suppose a part of a sheep's body yesterday, should be a part of a man's body to-morrow, and in that union make a vital part of Melibœus himself, as well as it did of his ram.

28. *The difficulty from ill use of names.*—To conclude: Whatever substance begins to exist, it must, during its existence, necessarily be the same; whatever compositions of substances begin to exist, during the union of those substances, the concrete must be the same: whatsoever mode begins to exist, during its existence it is the same: and so if the composition be of distinct substances and different modes, the same rule holds. Whereby it will appear, that the difficulty or obscurity that has been about this matter rather rises from the names ill used, than from any obscurity in things themselves. For whatever makes the specific idea to which the name is applied, if that idea be steadily kept to, the distinction of any thing into the same and diverse will easily be conceived, and there can arise no doubt about it.

29. *Continued existence makes identity.*—For supposing a rational spirit be the idea of a man, it is easy to know what is the same man; viz., the same spirit, whether separate or in a body, will be the same man. Supposing a rational spirit vitally united to a body of a certain conformation of parts to make a man, whilst that rational spirit, with that vital conformation of parts, though continued in a fleeting successive body, remains, it will be the same man. But if to any one the idea of a man be but the vital union of the parts in a certain shape, as long as that vital union and shape remains, in a concrete no otherwise the same but by a continued succession of fleeting particles, it will be the

same man. For, whatever be the composition whereof the complex idea is made, whenever existence makes it one particular thing under any denomination, the same existence, continued, preserves it the same individual under the same denomination.

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BOOK IV.

CHAPTER I.

OF KNOWLEDGE IN GENERAL.

1. *Our knowledge conversant about our ideas.*—

Since the mind, in all its thoughts and reasonings, hath no other immediate object but its own ideas, which it alone does or can contemplate, it is evident that our knowledge is only conversant about them.

2. *Knowledge is the perception of the agreement or disagreement of two ideas.*— Knowledge then seems to me to be nothing but the perception of the connection of and agreement, or disagreement and repugnancy, of any of our ideas. In this alone it consists. Where this perception is, there is knowledge; and where it is not, there, though we may fancy, guess, or believe, yet we always come short of knowledge. For, when we know that white is not black, what do we else but perceive that these two ideas do not agree? When we possess ourselves with the utmost security of the demonstration that the three angles of a triangle are equal to two right ones, what do we more but perceive, that equality to two right ones does necessarily agree to, and is inseparable from, the three angles of a triangle?

3. *This agreement fourfold.*— But, to understand a little more distinctly, wherein this agreement or disagreement consists, I think we may reduce it all to

these four sorts: (1.) Identity, or diversity. (2.) Relation. (3.) Co-existence, or necessary connection. (4.) Real existence.

4. *First, Of identity or diversity.*—First, As to the first sort of agreement or disagreement, viz., identity, or diversity. It is the first act of the mind, when it has any sentiments or ideas at all, to perceive its ideas, and, so far as it perceives them, to know each what it is, and thereby also to perceive their difference, and that one is not another. This is so absolutely necessary, that without it there could be no knowledge, no reasoning, no imagination, no distinct thoughts at all. By this the mind clearly and infallibly perceives each idea to agree with itself, and to be what it is; and all distinct ideas to disagree, *i. e.*, the one not to be the other: and this it does without pains, labour, or deduction, but at first view, by its natural power of perception and distinction. And though men of art have reduced this into those general rules, “What is, is;” and, “It is impossible for the same thing to be and not to be,” for ready application in all cases where in there may be occasion to reflect on it; yet it is certain that the first exercise of this faculty is about particular ideas. A man infallibly knows, as soon as ever he has them in his mind, that the ideas he calls “white” and “round” are the very ideas they are, and that they are not other ideas which he calls “red” or “square.” Nor can any maxim or proposition in the world make him know it clearer or surer than he did before, and without any such general rule. This, then, is the first agreement or disagreement which the mind perceives in its ideas, which it always perceives at first sight; and if there ever happen any doubt about it, it will always be found to be about the names, and not the ideas themselves,

whose identity and diversity will always be perceived as soon and as clearly as the ideas themselves are, nor can it possibly be otherwise.

5. *Secondly, Relative.*—Secondly, The next sort of agreement or disagreement the mind perceives in any of its ideas may, I think, be called “relative,” and is nothing but the perception of the relation between any two ideas, of what kind soever, whether substances, modes, or any other. For, since all distinct ideas must eternally be known not to be the same, and so be universally and constantly denied one of another; there could be no room for any positive knowledge at all, if we could not perceive any relation between our ideas, and find out the agreement or disagreement they have one with another, in several ways the mind takes of comparing them.

6. *Thirdly, Of co-existence.*—Thirdly, The third sort of agreement or disagreement to be found in our ideas, which the perception of the mind is employed about, is co-existence, or non-co-existence in the same subject; and this belongs particularly to substances. Thus when we pronounce concerning “gold” that it is fixed, our knowledge of this truth amounts to no more but this, that fixedness, or a power to remain in the fire unconsumed, is an idea that always accompanies and is joined with that particular sort of yellowness, weight, fusibility, malleableness and solubility in *aqua regia*, which make our complex idea, signified by the word “gold.”

7. *Fourthly, Of real existence.*—Fourthly, The fourth and last sort is that of actual real existence agreeing to any idea. Within these four sorts of agreement or disagreement is, I suppose, contained all the knowledge we have or are capable of; for, all the in-

quiries that we can make concerning any of our ideas, all that we know or can affirm concerning any of them, is, that it is or is not the same with some other; that it does or does not always co-exist with some other idea in the same subject; that it has this or that relation to some other idea; or that it has a real existence without the mind. Thus, "Blue is not yellow," is of identity. "Two triangles upon equal bases between two parallels are equal," is of relation. "Iron is susceptible of magnetical impressions," is of co-existence. "God is," is of real existence. Though identity and co-existence are truly nothing but relations, yet they are so peculiar ways of agreement or disagreement of our ideas, that they deserve well to be considered as distinct heads, and not under relation in general; since they are so different grounds of affirmation and negation, as will easily appear to any one who will but reflect on what is said in several places of this Essay. I should now proceed to examine the several degrees of our knowledge, but that it is necessary first to consider the different acceptations of the word "knowledge."

8. *Knowledge actual or habitual.*—There are several ways wherein the mind is possessed of truth, each of which is called "knowledge."

First, There is "actual knowledge," which is the present view the mind has of the agreement or disagreement of any of its ideas, or of the relation they have one to another.

Secondly, A man is said to know any proposition which having been once laid before his thoughts, he evidently perceived the agreement or disagreement of the ideas whereof it consists; and so lodged it in his memory, that, whenever that proposition comes again to be reflected on, he, without doubt or hesitation, em-

braces the right side, assents to and is certain of the truth of it. This, I think, one may call "habitual knowledge;" and thus a man may be said to know all those truths which are lodged in his memory by a foregoing clear and full perception, whereof the mind is assured past doubt as often as it has occasion to reflect on them. For, our finite understandings being able to think clearly and distinctly but on one thing at once, if men had no knowledge of any more than what they actually thought on, they would all be very ignorant; and he that knew most would know but one truth, that being all he was able to think on at one time.

9. *Habitual knowledge twofold.*—Of habitual knowledge there are also, vulgarly speaking, two degrees:—

First, The one is of such truths laid up in the memory as, whenever they occur to the mind, it actually perceives the relation is between those ideas. And this is in all those truths whereof we have an intuitive knowledge, where the ideas themselves, by an immediate view, discover their agreement or disagreement one with another.

Secondly, The other is of such truths, whereof the mind having been convinced, it retains the memory of the conviction without the proofs. Thus a man that remembers certainly that he once perceived the demonstration that the three angles of a triangle are equal to two right ones, is certain that he knows it, because he cannot doubt the truth of it. In his adherence to a truth where the demonstration by which it was at first known is forgot, though a man may be thought rather to believe his memory than really to know, and this way of entertaining a truth seemed formerly to me like something between opinion and knowledge, a sort of

assurance which exceeds bare belief, for that relies on the testimony of another; yet, upon a due examination, I find it comes not short of perfect certainty, and is, in effect, true knowledge. That which is apt to mislead our first thoughts into a mistake in this matter is, that the agreement or disagreement of the ideas in this case is not perceived, as it was at first, by an actual view of all the intermediate ideas whereby the agreement or disagreement of those in the proposition was at first perceived; but by other intermediate ideas, that show the agreement or disagreement of the ideas contained in the proposition whose certainty we remember. For example: in this proposition, that “the three angles of a triangle are equal to two right ones,” one who has seen and clearly perceived the demonstration of this truth, knows it to be true, when that demonstration has gone out of his mind, so that at present it is not actually in view, and possibly cannot be recollected: but he knows it in a different way from what he did before. The agreement of the two ideas joined in that proposition is perceived; but it is by the intervention of other ideas than those which at first produced that perception. He remembers, *i. e.*, he knows (for remembrance is but the reviving of some past knowledge) that he was once certain of the truth of this proposition, that “the three angles of a triangle are equal to two right ones.” The immutability of the same relations between the same immutable things is now the idea that shows him, that if the three angles of a triangle were once equal to two right ones, they will always be equal to two right ones. And hence he comes to be certain, that what was once true in the case is always true; what ideas once agreed will always agree: and, consequently, what he once knew to

be true he will always know to be true, as long as he can remember that he once knew it. Upon this ground it is that particular demonstrations in mathematics afford general knowledge. If, then, the perception that the same ideas will eternally have the same habitudes and relations be not a sufficient ground of knowledge, there could be no knowledge of general propositions in mathematics; for no mathematical demonstration would be any other than particular: and when a man had demonstrated any proposition concerning one triangle or circle, his knowledge would not reach beyond that particular diagram. If he would extend it farther, he must renew his demonstration in another instance before he could know it to be true in another like triangle, and so on: by which means one could never come to the knowledge of any general propositions. Nobody, I think, can deny that Mr. Newton certainly knows any proposition that he now at any time reads in his book to be true, though he has not in actual view that admirable chain of intermediate ideas whereby he at first discovered it to be true. Such a memory as that, able to retain such a train of particulars, may be well thought beyond the reach of human faculties: when the very discovery, perception, and laying together that wonderful connexion of ideas is found to surpass most readers' comprehension. But yet it is evident the author himself knows the proposition to be true, remembering he once saw the connexion of those ideas, as certainly as he knows such a man wounded another, remembering that he saw him run him through. But because the memory is not always so clear as actual perception, and does in all men more or less decay in length of time, this, amongst other differences, is one which shows that demonstrative

knowledge is much more imperfect than intuitive, as we shall see in the following chapter.

CHAPTER II.

OF THE DEGREES OF OUR KNOWLEDGE.

I. *Intuitive*.—All our knowledge consisting, as I have said, in the view the mind has of its own ideas, which is the utmost light and greatest certainty we, with our faculties and in our way of knowledge, are capable of, it may not be amiss to consider a little the degrees of its evidence. The different clearness of our knowledge seems to me to lie in the different way of perception the mind has of the agreement or disagreement of any of its ideas. For if we will reflect on our own ways of thinking, we will find that sometimes the mind perceives the agreement or disagreement of two ideas immediately by themselves, without the intervention of any other: and this, I think, we may call “intuitive knowledge.” For in this the mind is at no pains of proving or examining, but perceives the truth, as the eye doth light, only by being directed towards it. Thus the mind perceives that white is not black, that a circle is not a triangle, that three are more than two, and equal to one and two. Such kind of truths the mind perceives at the first sight of the ideas together, by bare intuition, without the intervention of any other idea; and this kind of knowledge is the clearest and most certain that human frailty is capable of. This part of knowledge is irresistible, and, like bright sunshine, forces itself immediately to be perceived as soon as ever the mind turns its view that way; and leaves no room for hesitation, doubt or ex-

amination, but the mind is presently filled with the clear light of it. It is on this intuition that depends all the certainty and evidence of all our knowledge, which certainty every one finds to be so great, that he cannot imagine, and therefore not require, a greater: for a man cannot conceive himself capable of a greater certainty, than to know that any idea in his mind is such as he perceives it to be; and that two ideas, wherein he perceives a difference, are different, and not precisely the same. He that demands a greater certainty than this demands he knows not what, and shows only that he has a mind to be a sceptic without being able to be so. Certainty depends so wholly on this intuition, that in the next degree of knowledge, which I call “demonstrative,” this intuition is necessary in all the connexions of the intermediate ideas, without which we cannot attain knowledge and certainty.

2. *Demonstrative*.—The next degree of knowledge is, where the mind perceives the agreement or disagreement of any ideas, but not immediately. Though wherever the mind perceives the agreement or disagreement of any of its ideas, there be certain knowledge; yet it does not always happen that the mind sees that agreement or disagreement which there is between them, even where it is discoverable; and in that case remains in ignorance, and at most gets no farther than a probable conjecture. The reason why the mind cannot always perceive presently the agreement or disagreement of two ideas, is, because those ideas concerning whose agreement or disagreement the inquiry is made, cannot by the mind be so put together as to show it. In this case then, when the mind cannot so bring its ideas together as, by their immediate comparison and, as it were, juxtaposition or application one to

another, to perceive their agreement or disagreement, it is fain, by the intervention of other ideas (one or more, as it happens), to discover the agreement or disagreement which it searches; and this is that which we call "reasoning." Thus the mind, being willing to know the agreement or disagreement in bigness between the three angles of a triangle and two right ones, cannot, by an immediate view and comparing them, do it: because the three angles of a triangle cannot be brought at once, and be compared with any one or two angles; and so of this the mind has no immediate, no intuitive knowledge. In this case the mind is fain to find out some other angles, to which the three angles of a triangle have an equality; and finding those equal to two right ones, comes to know their equality to two right ones.

3. *Depends on proofs.*—Those intervening ideas which serve to show the agreement of any two others, are called "proofs;" and where the agreement or disagreement is by this means plainly and clearly perceived, it is called "demonstration," it being shown to the understanding, and the mind made to see that it is so. A quickness in the mind to find out these intermediate ideas (that shall discover the agreement or disagreement of any other), and to apply them right, is, I suppose, that which is called "sagacity."

4. *But not so easy.*—This knowledge by intervening proofs though it be certain, yet the evidence of it is not altogether so clear and bright, nor the assent so ready, as in intuitive knowledge. For though in demonstration the mind does at last perceive the agreement or disagreement of the ideas it considers, yet it is not without pains and attention: there must be more than one transient view to find it. A steady application and

pursuit are required to this discovery: and there must be a progression by steps and degrees before the mind can in this way arrive at certainty, and come to perceive the agreement or repugnancy between two ideas that need proofs and the use of reason to show it.

5. *Not without precedent doubt.*—Another difference between intuitive and demonstrative knowledge, is, that though in the latter all doubt be removed, when by the intervention of the intermediate ideas the agreement or disagreement is perceived; yet before the demonstration there was a doubt; which in intuitive knowledge cannot happen to the mind that has its faculty of perception left to a degree capable of distinct ideas, no more than it can be a doubt to the eye (that can distinctly see white and black), whether this ink and this paper be all of a colour. If there be sight in the eyes, it will at first glimpse, without hesitation, perceive the words printed on this paper, different from the colour of the paper: and so, if the mind have the faculty of distinct perception, it will perceive the agreement or disagreement of those ideas that produce intuitive knowledge. If the eyes have lost the faculty of seeing, or the mind of perceiving, we in vain inquire after the quickness of sight in one, or clearness of perception in the other.

6. *Not so clear.*—It is true, the perception produced by demonstration is also very clear; yet it is often with a great abatement of that evident lustre and full assurance that always accompany that which I call “intuitive;” like a face reflected by several mirrors one to another, where, as long as it retains the similitude and agreement with the object, it produces a knowledge; but it is still in every successive reflection with a lessening of that perfect clearness and distinctness

which is in the first, till at last, after many removes, it has a great mixture of dimness, and is not at first sight so knowable, especially to weak eyes. Thus it is with knowledge made out by a long train of proof.

7. *Each step must have intuitive evidence.*—Now, in every step reason makes in demonstrative knowledge, there is an intuitive knowledge of that agreement or disagreement it seeks with the next intermediate idea, which it uses as a proof: for if it were not so, that yet would need a proof; since without the perception of such agreement or disagreement there is no knowledge produced. If it be perceived by itself, it is intuitive knowledge: if it cannot be perceived by itself, there is need of some intervening idea, as a common measure, to show their agreement or disagreement. By which it is plain, that every step in reasoning that produces knowledge has intuitive certainty; which when the mind perceives, there is no more required but to remember it, to make the agreement or disagreement of the ideas, concerning which we inquire, visible and certain. So that to make any thing a demonstration, it is necessary to perceive the immediate agreement of the intervening ideas, whereby the agreement or disagreement of the two ideas under examination (whereof the one is always the first, and the other the last in the account) is found. This intuitive perception of the agreement or disagreement of the intermediate ideas, in each step and progression of the demonstration, must also be carried exactly in the mind, and a man must be sure that no part is left out: which, because in long deductions, and the use of many proofs, the memory does not always so readily and exactly retain; therefore, it comes to pass, that this is more imperfect than intuitive

knowledge, and men embrace often falsehood for demonstrations.

8. *Hence the mistake, ex præcognitis et præconcessis.*—The necessity of this intuitive knowledge, in each step of scientific or demonstrative reasoning, gave occasion, I imagine, to that mistaken axiom, that all reasoning was *ex præcognitis et præconcessis*; which, how far it is a mistake, I shall have occasion to show more at large when I come to consider propositions, and particularly those propositions which are called “maxims;” and to show that it is by a mistake that they are supposed to be the foundations of all our knowledge and reasonings.

9. *Demonstration not limited to quantity.*—[It has been generally taken for granted, that mathematics alone are capable of demonstrative certainty: but to have such an agreement or disagreement as may intuitively be perceived, being, as I imagine, not the privilege of the ideas of number, extension, and figure alone, it may possibly be the want of due method and application in us, and not of sufficient evidence in things, that demonstration has been thought to have so little to do in other parts of knowledge, and been scarce so much as aimed at by any but mathematicians.] For, whatever ideas we have wherein the mind can perceive the immediate agreement or disagreement that is between them, there the mind is capable of intuitive knowledge; and where it can perceive the agreement or disagreement of any two ideas, by an intuitive perception of the agreement or disagreement they have with any intermediate ideas, there the mind is capable of demonstration, which is not limited to ideas of extension, figure, number, and their modes.

10. *Why it has been so thought.*—The reason why

it has been generally sought for and supposed to be only in those, I imagine, has been not only the general usefulness of those sciences, but because, in comparing their equality or excess, the modes of numbers have every the least difference very clear and perceivable: and though in extension every the least excess is not so perceptible, yet the mind has found out ways to examine and discover demonstratively the just equality of two angles, or extensions, or figures; and both these, *i. e.*, numbers and figures, can be set down by visible and lasting marks, wherein the ideas under consideration are perfectly determined; which for the most part they are not, where they are marked only by names and words.

II. But in other simple ideas, whose modes and differences are made and counted by degrees, and not quantity, we have not so nice and accurate a distinction of their differences as to perceive or find ways to measure their just equality or the least differences. For, those other simple ideas being appearances of sensations produced in us by the size, figure, number, and motion of minute corpuscles singly insensible, their different degrees also depend upon the variation of some or all of those causes; which, since it cannot be observed by us in particles of matter whereof each is too subtile to be perceived, it is impossible for us to have any exact measures of the different degrees of these simple ideas. For, supposing the sensation or idea we name "whiteness," be produced in us by a certain number of globules, which, having a verticity about their own centres, strike upon the *retina* of the eye with a certain degree of rotation, as well as progressive swiftness; it will hence easily follow, that the more the superficial parts of any body are so ordered as to reflect the

greater number of globules of light, and to give them the proper rotation which is fit to produce this sensation of white in us, the more white will that body appear that from an equal space sends to the *retina* the greater number of such corpuscles with that peculiar sort of motion. I do not say, that the nature of light consists in very small round globules, nor of whiteness in such a texture of parts as gives a certain rotation to these globules when it reflects them; for I am not now treating physically of light or colours; but this, I think, I may say, that I cannot (and I would be glad any one would make intelligible that he did) conceive how bodies without us can any ways affect our senses, but by the immediate contact of the sensible bodies themselves, as in tasting and feeling, or the impulse of some sensible particles coming from them, as in seeing, hearing, and smelling; by the different impulse of which parts, caused by their different size, figure, and motion, the variety of sensations is produced in us.

12. Whether then they be globules or no; or whether they have a verticity about their own centres that produces the idea of whiteness in us; this is certain, that the more particles of light are reflected from a body, fitted to give them that peculiar motion which produces the sensation of whiteness in us, and possibly, too, the quicker that peculiar motion is, the whiter does the body appear from which the greatest number are reflected, as is evident in the same piece of paper put in the sunbeams, in the shade, and in a dark hole; in each of which it will produce in us the idea of whiteness in far different degrees.

13. Not knowing therefore what number of particles, nor what motion of them, is fit to produce any precise degree of whiteness, we cannot demonstrate the

certain equality of any two degrees of whiteness; because we have no certain standard to measure them by, nor means to distinguish every the least real difference; the only help we have being from our senses, which in this point fail us. But where the difference is so great as to produce in the mind clearly distinct ideas, whose differences can be perfectly retained, there these ideas of colours, as we see in different kinds, as blue and red, are as capable of demonstration as ideas of number and extension. What I have here said of whiteness and colours, I think, holds true in all secondary qualities and their modes.

14. *Sensitive knowledge of particular existence.*—These two, *viz.*, intuition and demonstration, are the degrees of our knowledge; whatever comes short of one of these, with what assurance soever embraced, is but faith or opinion, but not knowledge, at least in all general truths. There is, indeed, another perception of the mind employed about the particular existence of finite beings without us; which, going beyond bare probability, and yet not reaching perfectly to either of the foregoing degrees of certainty, passes under the name of “knowledge.” There can be nothing more certain, than that the idea we receive from an external object is in our minds; this is intuitive knowledge. But whether there be anything more than barely that idea in our minds, whether we can thence certainly infer the existence of anything without us which corresponds to that idea, is that whereof some men think there may be a question made; because men may have such ideas in their minds when no such thing exists, no such object affects their senses. But yet here, I think, we are provided with an evidence that puts us past doubting; for I ask any one, whether he be not invincibly conscious

to himself of a different perception when he looks on the sun by day, and thinks on it by night; when he actually tastes wormwood, or smells a rose, or only thinks on that savour or odour? We as plainly find the difference there is between any idea revived in our minds by our own memory, and actually coming into our minds by our senses, as we do between any two distinct ideas. If any one say, "A dream may do the same thing, and all these ideas may be produced in us without any external objects;" he may please to dream that I make him this answer: (1.) That it is no great matter whether I remove his scruple or no; where all is but dream, reasoning and arguments are of no use, truth and knowledge nothing. (2) That I believe he will allow a very manifest difference between dreaming of being in the fire, and being actually in it. But yet if he be resolved to appear so sceptical as to maintain, that what I call "being actually in the fire" is nothing but a dream; and that we cannot thereby certainly know that any such thing as fire actually exists without us; I answer, that we certainly finding that pleasure or pain follows upon the application of certain objects to us, whose existence we perceive, or dream that we perceive, by our senses; this certainty is as great as our happiness or misery, beyond which we have no concernment to know or to be. So that, I think, we may add to the two former sorts of knowledge this also, of the existence of particular external objects by that perception and consciousness we have of the actual entrance of ideas from them, and allow these three degrees of knowledge, viz., intuitive, demonstrative, and sensitive: in each of which there are different degrees and ways of evidence and certainty.

15. *Knowledge not always clear, where the ideas are*

so.— But since our knowledge is founded on and employed about our ideas only, will it not follow from thence that it is conformable to our ideas; and that where our ideas are clear and distinct, or obscure and confused, our knowledge will be so too? To which I answer, No: for our knowledge consisting in the perception of the agreement or disagreement of any two ideas, its clearness or obscurity consists in the clearness or obscurity of that perception, and not in the clearness or obscurity of the ideas themselves; *v. g.*, a man that has as clear ideas of the angles of a triangle, and of equality to two right ones, as any mathematician in the world, may yet have but a very obscure perception of their agreement, and so have but a very obscure knowledge of it. [But ideas which by reason of their obscurity or otherwise are confused, cannot produce any clear or distinct knowledge; because as far as any ideas are confused, so far the mind cannot perceive clearly whether they agree or disagree. Or, to express the same thing in a way less apt to be misunderstood, he that hath not determined ideas to the words he uses cannot make propositions of them, of whose truth he can be certain.]

CHAPTER III.

OF THE EXTENT OF HUMAN KNOWLEDGE.

I. KNOWLEDGE, as has been said, lying in the perception of the agreement or disagreement of any of our ideas, it follows from hence that,

First, No farther than we have ideas.—First, We can have knowledge no farther than we have ideas.

2. *Secondly, No farther than we can perceive their agreement or disagreement.*—Secondly, That we can have no knowledge farther than we can have perception of that agreement or disagreement: which perception being, (1.) Either by intuition, or the immediate comparing any two ideas; or, (2.) By reason, examining the agreement or disagreement of two ideas by the intervention of some others; or, (3.) By sensation, perceiving the existence of particular things; hence it also follows,

3. *Thirdly, Intuitive knowledge extends itself not to all the relations of all our ideas.*—Thirdly, that we cannot have an intuitive knowledge that shall extend itself to all our ideas, and all that we would know about them; because we cannot examine and perceive all the relations they have one to another by juxtaposition, or an immediate comparison one with another. Thus having the ideas of an obtuse and an acute-angled triangle, both drawn from equal bases, and between parallels, I can by intuitive knowledge perceive the one not to be the other; but cannot that way know whether they be equal or no: because their agreement or disagreement in equality can never be perceived by an immediate comparing them; the difference of figure makes their parts incapable of an exact immediate application; and therefore there is need of some intervening qualities to measure them by, which is demonstration or rational knowledge.

4. *Fourthly, Nor demonstrative knowledge.*—Fourthly, It follows also, from what is above observed, that our rational knowledge cannot reach to the whole extent of our ideas: because between two different ideas we would examine, we cannot always find such mediums as we can connect one to another with an in-

tuitive knowledge, in all the parts of the deduction; and wherever that fails, we come short of knowledge and demonstration.

5. *Fifthly, Sensitive knowledge narrower than either.*—Fifthly, Sensitive knowledge, reaching no farther than the existence of things actually present to our senses, is yet much narrower than either of the former.

6. *Sixthly, Our knowledge therefore narrower than our ideas.*—From all which it is evident, that the extent of our knowledge comes not only short of the reality of things, but even of the extent of our own ideas. Though our knowledge be limited to our ideas, and cannot exceed them either in extent or perfection: and though these be very narrow bounds in respect of the extent of all being, and far short of what we may justly imagine to be in some even created understandings not tied down to the dull and narrow information that is to be received from some few and not very acute ways of perception, such as are our senses; yet it would be well with us if our knowledge were but as large as our ideas, and there were not many doubts and inquiries concerning the ideas we have, whereof we are not, nor I believe ever shall be in this world, resolved. Nevertheless, I do not question but that human knowledge, under the present circumstances of our beings and constitutions, may be carried much farther than it hitherto has been, if men would sincerely, and with freedom of mind, employ all that industry and labour of thought in improving the means of discovering truth which they do for the colouring or support of falsehood, to maintain a system, interest, or party they are once engaged in. But yet, after all, I think I may, without injury to human perfection, be confident that our knowledge

would never reach to all we might desire to know concerning those ideas we have; nor be able to surmount all the difficulties, and resolve all the questions, that might arise concerning any of them. We have the ideas of a square, a circle, and equality: and yet, perhaps, shall never be able to find a circle equal to a square, and certainly know that it is so. We have the ideas of matter and thinking, but possibly shall never be able to know whether [any mere material being] thinks or no; it being impossible for us, by the contemplation of our own ideas without revelation, to discover whether Omnipotency has not given to some systems of matter, fitly disposed, a power to perceive and think, or else joined and fixed to matter, so disposed, a thinking immaterial substance: it being, in respect of our notions, not much more remote from our comprehension to conceive that God can, if he pleases, superadd to matter a faculty of thinking, than that he should superadd to it another substance with a faculty of thinking; since we know not wherein thinking consists, nor to what sort of substances the Almighty has been pleased to give that power which cannot be in any created being but merely by the good pleasure and bounty of the Creator. For [I see no contradiction in it, that the first eternal thinking Being, or Omnipotent Spirit, should, if he pleased, give to certain systems of created senseless matter, put together as he thinks fit, some degrees of sense, perception and thought: though, as I think I have proved (lib. iv. chap. x. sec. 14, &c.), is no less than a contradiction to suppose matter (which is evidently in its own nature void of sense and thought) should be that eternal first thinking being. What certainty of knowledge can any one have that some perception, such as *v. g.*, pleasure and pain, should not be in some bodies themselves],

after a certain manner modified and moved, as well as that they should be in an immaterial substance upon the motion of the parts of body? body, as far as we can conceive, being able only to strike and affect body; and motion, according to the utmost reach of our ideas, being able to produce nothing but motion: so that when we allow it to produce pleasure or pain, or the idea of a colour or sound, we are fain to quit our reason, go beyond our ideas, and attribute it wholly to the good pleasure of our Maker. For, since we must allow he has annexed effects to motion, which we can no way conceive motion able to produce, what reason have we to conclude that he could not order them as well to be produced in a subject we cannot conceive capable of them, as well as in a subject we cannot conceive the motion of matter can any way operate upon? I say not this that I would any way lessen the belief of the soul's immateriality: I am not here speaking of probability, but knowledge: and I think, not only that it becomes the modesty of philosophy not to pronounce magisterially, where we want that evidence that can produce knowledge; but also, that it is of use to us to discern how far our knowledge does reach; for the state we are at present in, not being that of vision, we must, in many things, content ourselves with faith and probability: and in the present question about the immateriality of the soul, if our faculties cannot arrive at demonstrative certainty, we need not think it strange. All the great ends of morality and religion are well enough secured, without philosophical proofs of the soul's immateriality; since it is evident that he who made us at the beginning, to subsist here, sensible intelligent beings, and for several years continued us in such a state, can and will restore us to the like state of sensi-

bility in another world, and make us capable there to receive the retribution he has designed to men according to their doings in this life. [And therefore it is not of such mighty necessity to determine one way or the other, as some, over zealous for or against the immateriality of the soul, have been forward to make the world believe: who either, on the one side, indulging too much their thoughts immersed altogether in matter, can allow no existence to what is not material: or who, on the other side, finding not cogitation within the natural powers of matter, examined over and over again by the utmost intension of mind, have the confidence to conclude that Omnipotency itself cannot give perception and thought to a substance which has the modification of solidity. He that considers how hardly sensation is, in our thoughts, reconcilable to extended matter, or existence to anything that hath no extension at all, will confess that he is very far from certainly knowing what his soul is. It is a point which seems to me to be put out of the reach of our knowledge: and he who will give himself leave to consider freely, and look into the dark and intricate part of each hypothesis, will scarce find his reason able to determine him fixedly for or against the soul's materiality; since on which side soever he views it, either as an unextended substance, or as a thinking extended matter, the difficulty to conceive either will, whilst either alone is in his thoughts, still drive him to the contrary side: an unfair way which some men take with themselves; who, because of the unconceivableness of something they find in one, throw themselves violently into the contrary hypothesis, though altogether as unintelligible to an unbiassed understanding. This serves not only to show the weakness and the scantiness of our knowledge, but

the insignificant triumph of such sort of arguments which, drawn from our own views, may satisfy us that we can find no certainty on one side of the question ; but do not at all thereby help us to truth by running into the opposite opinion, which on examination will be found clogged with equal difficulties. For what safety, what advantage to any one is it, for the avoiding the seeming absurdities and, to him, insurmountable rubs he meets with in one opinion to take refuge in the contrary, which is built on something altogether as inexplicable, and as far remote from his comprehension? It is past controversy, that we have in us something that thinks ; our very doubts about what it is confirm the certainty of its being, though we must content ourselves in the ignorance of what kind of being it is : and it is as vain to go about to be sceptical in this, as it is unreasonable in most other cases to be positive against the being of any thing, because we cannot comprehend its nature. For I would fain know, what substance exists that has not something in it which manifestly baffles our understandings. Other spirits, who see and know the nature and inward constitution of things, how much must they exceed us in knowledge? To which if we add larger comprehension, which enables them at one glance to see the connexion and agreement of very many ideas, and readily supplies to them the intermediate proofs, which we, by single and slow steps, and long poring in the dark, hardly at last find out, and are often ready to forget one before we have hunted out another, we may guess at some part of the happiness of superior ranks of spirits, who have a quicker and more penetrating sight, as well as a larger field of knowledge.] But, to return to the argument in hand : our knowledge, I say, is not only limited to the

paucity and imperfections of the ideas we have, and which we employ it about, but even comes short of that, too: but how far it reaches, let us now inquire.

7. *How far our knowledge reaches.*—The affirmations or negations we make concerning the ideas we have, may, as I have before intimated in general, be reduced to these four sorts, viz., identity, co-existence, relation, and real existence. I shall examine how far our knowledge extends in each of these:—

8. *First. Our knowledge of identity and diversity, as far as our ideas.*—First, As to identity and diversity, in this way of the agreement or disagreement of ideas, our intuitive knowledge is as far extended as our ideas themselves: and there can be no idea in the mind which does not presently, by an intuitive knowledge, perceive to be what it is, and to be different from any other.

9. *Secondly. Of co-existence, a very little way.*—Secondly, As to the second sort, which is the agreement or disagreement of our ideas in co-existence, in this our knowledge is very short, though in this consists the greatest and most material part of our knowledge concerning substances. For our ideas of the species of substances being, as I have showed, nothing but certain collections of simple ideas united in one subject, and so co-existing together;—*v. g.*, our idea of “flame” is a body hot, luminous, and moving upward; of “gold,” a body heavy to a certain degree, yellow, malleable, and fusible. These, or some such complex ideas as these in men’s minds, do these two names of the different substances, “flame” and “gold,” stand for. When we would know any thing farther concerning these, or any other sort of substances, what do we inquire but what other qualities or powers these sub-

stances have or have not? which is nothing else but to know what other simple ideas do or do not co-exist with those that make up that complex idea.

10. *Because the connexion between most simple ideas is unknown*—This, how weighty and considerable a part soever of human science, is yet very narrow, and scarce any at all. The reason whereof is, that the simple ideas whereof our complex ideas of substances are made up are, for the most part, such as carry with them, in their own nature, no visible necessary connexion or inconsistency with any other simple ideas, whose co-existence with them we would inform ourselves about.

11. *Especially of secondary qualities.*—The ideas that our complex ones of substances are made up of, and about which our knowledge concerning substances is most employed, are those of their secondary qualities; which depending all (as has been shown) upon the primary qualities of their minute and insensible parts, or, if not upon them, upon something yet more remote from our comprehension, it is impossible we should know which have a necessary union or inconsistency one with another: for, not knowing the root they spring from, not knowing what size, figure, and texture of parts they are on which depend and from which result those qualities which make our complex idea of gold, it is impossible we should know what other qualities result from or are incompatible with the same constitution of the insensible parts of gold; and so, consequently, must always co-exist with that complex idea we have of it, or else are inconsistent with it.

12. *Because all connexion between any secondary and primary qualities is undiscoverable.*—Besides this

ignorance of the primary qualities of the insensible parts of bodies, on which depend all their secondary qualities, there is yet another and more incurable part of ignorance, which sets us more remote from a certain knowledge of the co-existence or in-co-existence (if I may so say) of different ideas in the same subject; and that is, that there is no discoverable connexion between any secondary quality and those primary qualities that it depends on.

13. That the size, figure, and motion of one body should cause a change in the size, figure, and motion of another body, is not beyond our conception. The separation of the parts of one body upon the intrusion of another, and the change from rest to motion upon impulse; these, and the like, seem to have some connexion one with another. And if we knew these primary qualities of bodies, we might have reason to hope we might be able to know a great deal more of these operations of them one upon another: but our minds not being able to discover any connexion betwixt these primary qualities of bodies, and the sensations that are produced in us by them, we can never be able to establish certain and undoubted rules of the consequence or co-existence of any secondary qualities, though we could discover the size, figure, or motion of those invisible parts which immediately produce them. We are so far from knowing what figure, size, or motion of parts produce a yellow colour, a sweet taste, or a sharp sound, that we can by no means conceive how any size, figure, or motion of any particles can possibly produce in us the idea of any colour, taste, or sound whatsoever; there is no conceivable connexion between the one and the other.

14. In vain therefore shall we endeavour to discover

by our ideas (the only true way of certain and universal knowledge) what other ideas are to be found constantly joined with that of our complex idea of any substance: since we neither know the real constitution of the minute parts on which their qualities do depend; nor, did we know them, could we discover any necessary connexion between them and any of the secondary qualities; which is necessary to be done before we can certainly know their necessary co-existence. So that, let our complex idea of any species of substances be what it will, we can hardly, from the simple ideas contained in it, certainly determine the necessary co-existence of any other quality whatsoever. Our knowledge in all these inquiries reaches very little farther than our experience. Indeed some few of the primary qualities have a necessary dependence and visible connexion one with another, as figure necessarily supposes extension, receiving or communicating motion by impulse supposes solidity. But though these and perhaps some others of our ideas have, yet there are so few of them that have, a visible connexion one with another, that we can by intuition or demonstration discover the co-existence of very few of the qualities are to be found united in substances: and we are left only to the assistance of our senses to make known to us what qualities they contain. For, of all the qualities that are co-existent in any subject, without this dependence and evident connexion of their ideas one with another, we cannot know certainly any two to co-exist any farther than experience, by our senses, informs us. Thus though we see the yellow colour, and upon trial find the weight, malleableness, fusibility, and fixedness that are united in a piece of gold; yet, because no one of these ideas has any evident dependence or neces-

sary connexion with the other, we cannot certainly know that where any four of these are the fifth will be there also, how highly probable soever it may be: because the highest probability amounts not to certainty; without which there can be no true knowledge. For this co-existence can be no farther known than it is perceived: and it cannot be perceived but either in particular subjects by the observation of our senses, or in general by the necessary connexion of the ideas themselves.

15. *Of repugnancy to co-existence, larger.*—As to incompatibility or repugnancy to co-existence, we may know that any subject may have of each sort of primary qualities but one particular at once; *v. g.*, each particular extension, figure, number of parts, motion, excludes all other of each kind. The like also is certain of all sensible ideas peculiar to each sense; for whatever of each kind is present in any subject, excludes all other of that sort; *v. g.*, no one subject can have two smells or two colours at the same time. To this, perhaps, will be said, “Has not an *opal* or the infusion of *lignum nephriticum* two colours at the same time?” To which I answer, that these bodies, to eyes differently placed, may at the same time afford different colours: but I take liberty also to say, that to eyes differently placed it is different parts of the object that reflect the particles of light: and therefore it is not the same part of the object, and so not the very same subject, which at the same time appears both yellow and azure. For it is as impossible that the very same particle of any body should at the same time differently modify or reflect the rays of light, as that it should have two different figures and textures at the same time.

16. *Of the co-existence of powers, a very little way.*
 — But as to the power of substances to change the sensible qualities of other bodies, which makes a great part of our inquiries about them, and is no inconsiderable branch of our knowledge; I doubt, as to these, whether our knowledge reaches much farther than our experience; or whether we can come to the discovery of most of these powers, and be certain that they are in any subject, by the connexion with any of those ideas which to us make its essence. Because the active and passive powers of bodies, and their ways of operating, consisting in a texture and motion of parts which we cannot by any means come to discover, it is but in very few cases we can be able to perceive their dependence on or repugnance to any of those ideas which make our complex one of that sort of things. I have here instanced in the corpuscularian hypothesis, as that which is thought to go farthest in an intelligible explication of those qualities of bodies; and I fear the weakness of human understanding is scarce able to substitute another, which will afford us a fuller and clearer discovery of the necessary connexion and co-existence of the powers which are to be observed united in several sorts of them. This at least is certain, that whichever hypothesis be clearest and truest (for of that it is not my business to determine), our knowledge concerning corporeal substances will be very little advanced by any of them, till we are made to see what qualities and powers of bodies have a necessary connexion or repugnancy one with another; which, in the present state of philosophy, I think, we know but to a very small degree: and I doubt whether, with those faculties we have, we shall ever be able to carry our general knowledge (I say not particular experience) in this part

much farther. [Experience is that which in this part we must depend on. And it were to be wished that it were more improved. We find the advantages some men's generous pains have this way brought to the stock of natural knowledge. And if others, especially the philosophers by fire, who pretend to it, had been so wary in their observations and sincere in their reports as those who call themselves philosophers ought to have been, our acquaintance with the bodies here about us, and our insight into their powers and operations, had been yet much greater.]

17. *Of spirits yet narrower.*—If we are at a loss in respect of the powers and operations of bodies, I think it is easy to conclude we are much more in the dark in reference to spirits, whereof we naturally have no ideas but what we draw from that of our own, by reflecting on the operations of our own souls within us, as far as they can come within our observation. But how inconsiderable a rank the spirits that inhabit our bodies hold amongst those various, and possibly innumerable, kinds of nobler beings; and how far short they come of the endowments and perfections of cherubims and seraphims, and infinite sorts of spirits above us, is what by a transient hint, in another place, I have offered to my reader's consideration.

18. *Thirdly, Of other relations, it is not easy to say how far.*—As to the third sort of our knowledge, viz., the agreement or disagreement of any of our ideas in any other relation: this, as it is the largest field of our knowledge, so it is hard to determine how far it may extend: because the advances that are made in this part of knowledge depending on our sagacity in finding intermediate ideas that may show the relations and habits of ideas, whose co-existence is not considered,

it is a hard matter to tell when we are at an end of such discoveries, and when reason has all the helps it is capable of for the finding of proofs, or examining the agreement or disagreement of remote ideas. They that are ignorant of algebra, cannot imagine the wonders in this kind are to be done by it: and what farther improvements and helps, advantageous to other parts of knowledge, the sagacious mind of man may yet find out, it is not easy to determine. This at least I believe, that the ideas of quantity are not those alone that are capable of demonstration and knowledge; and that other, and perhaps more useful, parts of contemplation would afford us certainty, if vices, passions, and domineering interest did not oppose or menace such endeavours.

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21. *Fourthly, Of real existence. We have an* INTUITIVE *knowledge of our own, DEMONSTRATIVE of God's, SENSITIVE of some few other things.*—As to the fourth sort of our knowledge, viz., of the real existence of things, we have an intuitive knowledge of our own existence; and a demonstrative knowledge of the existence of a God; of the existence of any thing else, we have no other but a sensitive knowledge, which extends not beyond the objects present to our senses.

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CHAPTER IV.

OF THE REALITY OF HUMAN KNOWLEDGE.

I. *Objection. Knowledge placed in ideas may be all bare vision.*—I doubt not but my reader by this time may be apt to think that I have been all this while

only building a castle in the air; and be ready to say to me, "To what purpose all this stir? 'Knowledge,' say you, 'is only the perception of the agreement or disagreement of our own ideas;' but who knows what those ideas may be? Is there any thing so extravagant as the imaginations of men's brains? Where is the head that has no chimeras in it? Or if there be a sober and a wise man, what difference will there be, by your rules, between his knowledge, and that of the most extravagant fancy in the world? They both have their ideas, and perceive their agreement and disagreement one with another. If there be any difference between them, the advantage will be on the warm-headed man's side, as having the more ideas, and the more lively. And so, by your rules, he will be the more knowing. If it be true, that all knowledge lies only in the perception of the agreement or disagreement of our own ideas, the visions of an enthusiast, and the reasonings of a sober man, will be equally certain. It is no matter how things are: so a man observe but the agreement of his own imaginations, and talk conformably, it is all truth, all certainty. Such castles in the air will be as strongholds of truth as the demonstrations of Euclid. That an harpy is not a centaur, is by this way as certain knowledge, and as much a truth, as that a square is not a circle.

"But of what use is all this fine knowledge of men's own imaginations to a man that inquires after the reality of things? It matters not what men's fancies are, it is the knowledge of things that is only to be prized: it is this alone gives a value to our reasonings, and preference to one man's knowledge over another's, that it is of things as they really are, and not of dreams and fancies."

2. *Answer. Not so where ideas agree with things.*—To which I answer, That if our knowledge of our ideas terminate in them, and reach no farther, where there is something farther intended, our most serious thoughts will be of little more use than the reveries of a crazy brain; and the truths built thereon of no more weight than the discourses of a man who sees things clearly in a dream, and with great assurance utters them. But I hope before I have done to make it evident that this way of certainty, by the knowledge of our own ideas, goes a little farther than bare imagination; and I believe it will appear, that all the certainty of general truths a man has lies in nothing else.

3. It is evident the mind knows not things immediately, but only by the intervention of the ideas it has of them. Our knowledge therefore is real only so far as there is a conformity between our ideas and the reality of things. But what shall be here the criterion? How shall the mind, when it perceives nothing but its own ideas, know that they agree with things themselves? This, though it seems not to want difficulty, yet I think there be two sorts of ideas that we may be assured agree with things.

4. *As, First, all simple ideas do.*—First, The first are simple ideas, which since the mind, as has been showed, can by no means make to itself, must necessarily be the product of things operating on the mind in a natural way, and producing therein those perceptions which by the wisdom and will of our Maker they are ordained and adapted to. From whence it follows, that simple ideas are not fictions of our fancies, but the natural and regular productions of things without us really operating upon us; and so carry with them all the conformity which is intended, or which our state requires;

for they represent to us things under those appearances which they are fitted to produce in us, whereby we are enabled to distinguish the sorts of particular substances, to discern the states they are in, and so to take them for our necessities, and apply them to our uses. Thus the idea of whiteness or bitterness, as it is in the mind, exactly answering that power which is in any body to produce it there, has all the real conformity it can or ought to have with things without us. And this conformity between our simple ideas and the existence of things is sufficient for real knowledge.

5. *Secondly, All complex ideas except of substances.*
 — Secondly, All our complex ideas except those of substances being archetypes of the mind's own making, not intended to be the copies of any thing, nor referred to the existence of any thing, as to their originals, cannot want any conformity necessary to real knowledge. For that which is not designed to represent any thing but itself, can never be capable of a wrong representation, nor mislead us from the true apprehension of any thing by its dislikeness to it; and such, excepting those of substances, are all our complex ideas: which, as I have showed in another place, are combinations of ideas which the mind by its free choice puts together without considering any connexion they have in nature. And hence it is, that in all these sorts the ideas themselves are considered as the archetypes, and things no otherwise regarded but as they are conformable to them. So that we cannot but be infallibly certain, that all the knowledge we attain concerning these ideas is real, and reaches things themselves; because in all our thoughts, reasonings, and discourses of this kind, we intend things no farther than as they are conform-

able to our ideas. So that in these we cannot miss of a certain and undoubted reality.

6. *Hence the reality of mathematical knowledge.*— I doubt not but it will be easily granted that the knowledge we have of mathematical truths, is not only certain but real knowledge; and not the bare empty vision of vain, insignificant chimeras of the brain; and yet, if we will consider, we shall find that it is only of our own ideas. The mathematician considers the truth and properties belonging to a rectangle or circle, only as they are in idea in his own mind. For it is possible he never found either of them existing mathematically, *i. e.*, precisely true, in his life. But yet the knowledge he has of any truths or properties belonging to a circle, or any other mathematical figure, are never the less true and certain even of real things existing; because real things are no farther concerned, nor intended to be meant by any such propositions, than as things really agree to those archetypes in his mind. Is it true of the idea of a triangle, that its three angles are equal to two right ones? It is true also of a triangle wherever it really exists. Whatever other figure exists, that it is not exactly answerable to that idea of a triangle in his mind, is not at all concerned in that proposition. And therefore he is certain all his knowledge concerning such ideas is real knowledge: because, intending things no farther than they agree with those his ideas, he is sure what he knows concerning those figures when they have barely an ideal existence in his mind, will hold true of them also when they have a real existence in matter; his consideration being barely of those figures, which are the same wherever or however they exist.

7. *And of moral.*— And hence it follows that moral knowledge is as capable of real certainty as mathema-

tics. For, certainty being but the perception of the agreement or disagreement of our ideas, and demonstration nothing but the perception of such agreement by the intervention of other ideas or mediums, our moral ideas as well as mathematical being archetypes themselves, and so adequate and complete ideas, all the agreement or disagreement which we shall find in them will produce real knowledge, as well as in mathematical figures.

8. *Existence not required to make it real.*—[For the attaining of knowledge and certainty, it is requisite that we have determined ideas:] and to make our knowledge real, it is requisite that the ideas answer their archetypes. Nor let it be wondered that I place the certainty of our knowledge in the consideration of our ideas with so little care and regard (as it may seem) to the real existence of things: since most of those discourses which take up the thoughts and engage the disputes of those who pretend to make it their business to inquire after truth and certainty, will, I presume, upon examination, be found to be general propositions and notions in which existence is not at all concerned. All the discourses of the mathematicians about the squaring of a circle, conic sections, or any other part of mathematics, concern not the existence of any of those figures: but their demonstrations, which depend on their ideas, are the same, whether there be any square or circle existing in the world, or no. In the same manner, the truth and certainty of moral discourses abstracts from the lives of men, and the existence of those virtues in the world whereof they treat: nor are Tully's Offices less true because there is nobody in the world that exactly practises his rules, and lives up to that pattern of a virtuous man which he has given us,

and which existed nowhere when he writ but in idea. If it be true in speculation, *i. e.*, in idea, that murder deserves death, it will also be true in reality of any action that exists conformable to that idea of murder. As for other actions, the truth of that proposition concerns them not. And thus it is of all other species of things which have no other essences but those ideas which are in the minds of men.

9. *Nor will it be less true or certain because moral ideas are of our own making and naming.*— But it will here be said, that “if moral knowledge be placed in the contemplation of our own moral ideas, and those, as other modes, be of our own making, what strange notions will there be of justice and temperance! What confusion of virtues and vices, if every one may make what ideas of them he pleases!” No confusion nor disorder in the things themselves, nor the reasonings about them; no more than (in mathematics) there would be a disturbance in the demonstration, or a change in the properties of figures and their relations one to another, if a man should make a triangle with four corners, or a *trapezium* with four right angles: that is, in plain English, change the names of the figures, and call that by one name which mathematicians called ordinarily by another. For, let a man make to himself the idea of a figure with three angles, whereof one is a right one, and call it, if he please, *equilaterum* or *trapezium*, or any thing else, the properties of and demonstrations about that idea will be the same as if he called it a “rectangular triangle.” I confess, the change of the name by the impropriety of speech will at first disturb him who knows not what idea it stands for: but as soon as the figure is drawn, the consequences and demonstrations are plain and clear. Just the same

is it in moral knowledge; let a man have the idea of taking from others, without their consent, what their honest industry has possessed them of, and call this "justice," if he please. He that takes the name here without the idea put to it, will be mistaken by joining another idea of his own to that name: but strip the idea of that name, or take it such as it is in the speaker's mind, and the same things will agree to it as if you called it "injustice." Indeed, wrong names in moral discourses breed usually more disorder, because they are not so easily rectified as in mathematics, where the figure once drawn and seen makes the name useless and of no force. For what need of a sign when the thing signified is present and in view? But in moral names that cannot be so easily and shortly done, because of the many decompositions that go to the making up the complex ideas of those modes. But yet, for all this, the miscalling of any of those ideas contrary to the usual signification of the words of that language, hinders not but that we may have certain and demonstrative knowledge of their several agreements and disagreements, if we will carefully, as in mathematics, keep to the same precise ideas, and trace them in their several relations one to another without being led away by their names. If we but separate the idea under consideration from the sign that stands for it, our knowledge goes equally on in the discovery of real truth and certainty, whatever sounds we make use of.

10. *Misnaming disturbs not the certainty of the knowledge.*—One thing more we are to take notice of, that where God, or any other law-maker, hath defined any moral names, there they have made the essence of that species to which that name belongs: and there it is not safe to apply or use them otherwise: but in

other cases it is bare impropriety of speech to apply them contrary to the common usage of the country. But yet even this too disturbs not the certainty of that knowledge, which is still to be had by a due contemplation and comparing of those even nick-named ideas.

11. *Ideas of substances have their archetypes without us.*—Thirdly, There is another sort of complex ideas, which being referred to archetypes without us may differ from them, and so our knowledge about them may come short of being real. Such are our ideas of substances, which consisting of a collection of simple ideas, supposed taken from the works of nature, may yet vary from them, by having more or different ideas united in them than are to be found united in the things themselves: from whence it comes to pass, that they may and often do fail of being exactly conformable to things themselves.

12. *So far as they agree with those, so far our knowledge concerning them is real.*—I say, then, that to have ideas of substances which, by being conformable to things, may afford us real knowledge, it is not enough, as in modes, to put together such ideas as have no inconsistency, though they did never before so exist; *v. g.*, the ideas of sacrilege or perjury, &c., were as real and true ideas before as after the existence of any such fact. But our ideas of substances, being supposed copies, and referred to archetypes without us, must still be taken from something that does or has existed; they must not consist of ideas put together at the pleasure of our thoughts without any real pattern they were taken from, though we can perceive no inconsistency in such a combination. The reason whereof is, because we knowing not what real constitution it is of substances whereon our simple ideas de-

pend, and which really is the cause of the strict union of some of them one with another, and the exclusion of others; there are very few of them that we can be sure are or are not inconsistent in nature, any farther than experience and sensible observation reach. Herein therefore is founded the reality of our knowledge concerning substances, that all our complex ideas of them must be such, and such only, as are made up of such simple ones as have been discovered to co-exist in nature. And our ideas, being thus true, though not perhaps very exact copies, are yet the subjects of real (as far as we have any) knowledge of them: which, as has been already showed, will not be found to reach very far; but so far as it does, it will still be real knowledge. Whatever ideas we have, the agreement we find they have with others will still be knowledge. If those ideas be abstract, it will be general knowledge. But to make it real concerning substances, the ideas must be taken from the real existence of things. Whatever simple ideas have been found to co-exist in any substance, these we may with confidence join together again, and so make abstract ideas of substances. For whatever have once had an union in nature, may be united again.

13. *In our inquiries about substances we must consider ideas, and not confine our thoughts to names or species supposed set out by names.*— This if we rightly consider, and confine not our thoughts and abstract ideas to names, as if there were or could be no other sorts of things than what known names had already determined, and, as it were set out, we should think of things with greater freedom and less confusion than perhaps we do. It would possibly be thought a bold paradox, if not a very dangerous falsehood, if I should

say, that some changelings who have lived forty years together without any appearance of reason, are something between a man and a beast: which prejudice is founded upon nothing else but a false supposition, that these two names, "man" and "beast," stand for distinct species so set out by real essences, that there can come no other species between them; whereas if we will abstract from those names, and the supposition of such specific essences made by nature, wherein all things of the same denominations did exactly and equally partake; if we would not fancy that there were a certain number of these essences wherein all things, as in moulds, were cast and formed; we should find that the idea of the shape, motion, and life of a man without reason is as much a distinct idea, and makes as much a distinct sort of things from man and beast, as the idea of the shape of an ass with reason would be different from either that of man or beast and be a species of an animal between or distinct from both.

14. *Objection against a changeling being something between a man and a beast, answered.*—Here every body will be ready to ask, "If changelings may be supposed something between man and beast, pray what are they?" I answer, "Changelings," which is as good a word to signify something different from the signification of "man" or "beast," as the names "man" and "beast" are to have significations different one from the other. This, well considered, would resolve this matter, and show my meaning without any more ado. But I am not so unacquainted with the zeal of some men, which enables them to spin consequences, and to see religion threatened whenever any one ventures to quit their forms of speaking, as not to foresee what names such a proposition as this is

like to be charged with: and without doubt it will be asked, "If changelings are something between man and beast, what will become of them in the other world?" To which I answer, First, It concerns me not to know or inquire. To their own Master they stand or fall. It will make their state neither better nor worse, whether we determine any thing of it or no. They are in the hands of a faithful Creator and a bountiful Father, who disposes not of his creatures according to our narrow thoughts or opinions, nor distinguishes them according to names and species of our contrivance. And we that know so little of this present world we are in, may I think, content ourselves without being peremptory in defining the different states which creatures shall come into when they go off this stage. It may suffice us that He hath made known to all those who are capable of instruction, discourse, and reasoning, that they shall come to an account, and receive according to what they have done in this body.

15. But, Secondly, I answer, The force of these men's question (*viz.*, "Will you deprive changelings of a future state?") is founded on one of two suppositions, which are both false. The first is, that all things that have the outward shape and appearance of a man must necessarily be designed to an immortal future being after this life. Or, secondly, that whatever is of human birth must be so. Take away these imaginations, and such questions will be groundless and ridiculous. I desire, then, those who think there is no more but an accidental difference between themselves and changelings, the essence in both being exactly the same, to consider whether they can imagine immortality annexed to any outward shape of the body; the very proposing it is, I suppose, enough to make them

disown it. No one yet that ever I heard of, how much soever immersed in matter, allowed that excellency to any figure of the gross sensible outward parts, as to affirm eternal life due to it, or a necessary consequence of it; or that any mass of matter should, after its dissolution here, be again restored hereafter to an everlasting state of sense, perception, and knowledge, only because it was moulded into this or that figure, and had such a particular frame of its visible parts. Such an opinion as this, placing immortality in a certain superficial figure, turns out of doors all consideration of soul or spirit; upon whose account alone some corporeal beings have hitherto been concluded immortal, and others not. This is to attribute more to the outside than inside of things; to place the excellency of a man more in the external shape of his body than internal perfections of his soul: which is but little better than to annex the great and inestimable advantage of immortality and life everlasting, which he has above other material beings, to annex it, I say, to the cut of his beard, or the fashion of his coat. For, this or that outward mark of our bodies no more carries with it the hopes of an eternal duration, than the fashion of a man's suit gives him reasonable grounds to imagine it will never wear out, or that it will make him immortal. It will perhaps be said, that nobody thinks that the shape makes any thing immortal, but it is the shape is the sign of a rational soul within, which is immortal. I wonder who made it the sign of any such thing: for barely saying it will not make it so. It would require some proofs to persuade one of it. No figure that I know speaks any such language. For it may as rationally be concluded, that the dead body of a man, wherein there is to be found no more appearance or

action of life than there is in a statue, has yet nevertheless a living soul in it, because of its shape; as that there is a rational soul in a changeling, because he has the outside of a rational creature, when his actions carry far less marks of reason with them in the whole course of his life than what are to be found in many a beast.

16. *Monsters*.—“But it is the issue of rational parents, and must therefore be concluded to have a rational soul.” I know not by what logic you must so conclude. I am sure this is a conclusion that men nowhere allow of. For, if they did, they would not make bold, as every where they do, to destroy ill-formed and mis-shaped productions. “Ay, but these are monsters.” Let them be so; what will your drivelling, unintelligent, intractable changeling be? Shall a defect in the body make a monster; a defect in the mind (the far more noble and in the common phrase, the far more essential part) not? Shall the want of a nose or a neck make a monster, and put such issue out of the rank of men; the want of reason and understanding not? This is to bring all back again to what was exploded just now: this is to place all in the shape, and to take the measure of a man only by his outside. To show that, according to the ordinary way of reasoning in this matter, people do lay the whole stress on the figure, and resolve the whole essence of the species of man (as they make it) into the outward shape, how unreasonable soever it be, and how much soever they disown it, we need but trace their thoughts and practice a little farther, and then it will plainly appear. The well-shaped changeling is a man, has a rational soul, though it appear not: “This is past doubt,” say you. Make the ears a little longer and more pointed,

and the nose a little flatter, than ordinary, and then you begin to boggle: make the face yet narrower, flatter, and longer, and then you are at a stand: add still more and more of the likeness of a brute to it, and let the head be perfectly that of some other animal, then presently it is a monster; and it is demonstration with you that it hath no rational soul, and must be destroyed. Where now, I ask, shall be the just measure of the utmost bounds of that shape that carries with it a rational soul? For, since there have been human foetuses produced, half beast and half man; and others three parts one, and one part the other; and so it is possible they may be in all the variety of approaches to the one or the other shape, and may have several degrees of mixture of the likeness of a man or a brute; I would gladly know what are those precise lineaments which, according to this hypothesis, are or are not capable of a rational soul to be joined to them? What sort of outside is the certain sign that there is or is not such an inhabitant within? For, till that be done, we talk at random of man; and shall always, I fear, do so as long as we give ourselves up to certain sounds, and the imaginations of settled and fixed species in nature, we know not what. But, after all, I desire it may be considered that those who think they have answered the difficulty by telling us that a mis-shaped *foetus* is a monster, run into the same fault they are arguing against, by constituting a species between man and beast. For what else, I pray, is their monster in the case (if the word "monster" signifies any thing at all), but something neither man nor beast, but partaking somewhat of either? And just so is the changeling before mentioned. So necessary is it to quit the common notion of species and essences, if we will truly look into the

nature of things, and examine them by what our faculties can discover in them as they exist, and not by groundless fancies that have been taken up about them.

17. *Words and species.*—I have mentioned this here, because I think we cannot be too cautious that words and species, in the ordinary notions which we have been used to of them, impose not on us. For, I am apt to think, therein lies one great obstacle to our clear and distinct knowledge, especially in reference to substances; and from thence has rose a great part of the difficulties about truth and certainty. Would we accustom ourselves to separate our contemplations and reasonings from words, we might, in a great measure, remedy this inconvenience within our own thoughts: but yet it would still disturb us in our discourse with others, as long as we retain the opinion, that species and their essences were any thing else but our abstract ideas, (such as they are,) with names annexed to them to be the signs of them.

18. *Recapitulation.*—Wherever we perceive the agreement or disagreement of any of our ideas, there is certain knowledge: and wherever we are sure those ideas agree with the reality of things, there is certain real knowledge. Of which agreement of our ideas with the reality of things having here given the marks, I think I have shown wherein it is that certainty, real certainty, consists. Which, whatever it was to others, was, I confess, to me heretofore one of those *desiderata* which I found great want of.

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CHAPTER IX.

OF OUR THREEFOLD KNOWLEDGE OF EXISTENCE.

1. *General certain propositions concern not existence.*—Hitherto we have only considered the essences of things, which, being only abstract ideas, and thereby removed in our thoughts from particular existence, (that being the proper operation of the mind in abstraction, to consider an idea under no other existence but what it has in the understanding,) gives us no knowledge of real existence at all. Where, by the way, we may take notice, that universal propositions, of whose truth or falsehood we can have certain knowledge, concern not existence; and farther, that all particular affirmations or negations that would not be certain if they were made general, are only concerning existence; they declaring only the accidental union or separation of ideas in things existing, which in their abstract natures have no known necessary union or repugnancy.

2. *A threefold knowledge of existence.*—But leaving the nature of propositions, and different ways of predication, to be considered more at large in another place, let us proceed now to inquire concerning our knowledge of the existence of things, and how we come by it. I say then, that we have the knowledge of our own existence by intuition; of the existence of God by demonstration; and of other things by sensation.

3. *Our knowledge of our own existence is intuitive.*—As for our own existence, we perceive it so plainly and so certainly that it neither needs nor is capable of any proof. For nothing can be more evident to us

than our own existence. I think, I reason, I feel pleasure and pain: can any of these be more evident to me than my own existence? If I doubt of all other things, that very doubt makes me perceive my own existence, and will not suffer me to doubt of that. For, if I know I feel pain, it is evident I have as certain perception of my own existence, as of the existence of the pain I feel: or if I know I doubt, I have as certain perception of the existence of the thing doubting, as of that thought which I call "doubt." Experience, then, convinces us that we have an intuitive knowledge of our own existence, and an internal infallible perception that we are. In every act of sensation, reasoning, or thinking, we are conscious to ourselves of our own being; and, in this matter, come not short of the highest degree of certainty.

CHAPTER X.

OF OUR KNOWLEDGE OF THE EXISTENCE OF A GOD.

I. *We are capable of knowing certainly that there is a God.*— Though God has given us no innate ideas of himself; though he has stamped no original characters on our minds, wherein we may read his being; yet, having furnished us with those faculties our minds are endowed with, he hath not left himself without witness; since we have sense, perception, and reason, and cannot want a clear proof of him as long as we carry ourselves about us. Nor can we justly complain of our ignorance in this great point, since he has so plentifully provided us with the means to discover and know him, so far as is necessary to the end of our being, and the great concernment of our happiness. But

though this be the most obvious truth that reason discovers, and though its evidence be (if I mistake not) equal to mathematical certainty; yet it requires thought and attention, and the mind must apply itself to a regular deduction of it from some part of our intuitive knowledge, or else we shall be as uncertain and ignorant of this as of other propositions which are in themselves capable of clear demonstration. To show, therefore, that we are capable of knowing, *i. e.*, being certain, that there is a God, and how we may come by this certainty, I think we need go no farther than ourselves, and that undoubted knowledge we have of our own existence.

2. *Man knows that he himself is.*—I think it is beyond question, that man has a clear idea of his own being; he knows certainly that he exists, and that he is something. He that can doubt whether he be any thing or no, I speak not to; no more than I would argue with pure nothing, or endeavour to convince nonentity that it were something. If any one pretends to be so sceptical as to deny his own existence (for really to doubt of it is manifestly impossible), let him, for me, enjoy his beloved happiness of being nothing, until hunger or some other pain convince him of the contrary. This, then, I think I may take for a truth, which every one's certain knowledge assures him of beyond the liberty of doubting, *viz.*, that he is something that actually exists.

3. *He knows also that nothing cannot produce a being, therefore something eternal.*—In the next place, man knows by an intuitive certainty that bare nothing can no more produce any real being, than it can be equal to two right angles. If a man knows not that nonentity, or the absence of all being, cannot be equal

to two right angles, it is impossible he should know any demonstration in Euclid. If therefore we know there is some real being, and that nonentity cannot produce any real being, it is an evident demonstration, that from eternity there has been something; since what was not from eternity had a beginning; and what had a beginning must be produced by something else.

4. *That Eternal Being must be most powerful.*—Next, it is evident, that what had its being and beginning from another, must also have all that which is in and belongs to its being from another too. All the powers it has, must be owing to and received from the same source. This eternal source, then, of all being, must also be the source and original of all power; and so this Eternal Being must be also the most powerful.

5. *And most knowing.*—Again: a man finds in himself perception and knowledge. We have then got one step farther; and we are certain now that there is not only some being, but some knowing, intelligent being in the world.

There was a time, then, when there was no knowing being, and when knowledge began to be; or else there has been also a knowing Being from eternity. If it be said, "There was a time when no being had any knowledge, when that Eternal Being was void of all understanding;" I reply, that then it was impossible there should ever have been any knowledge; it being as impossible that things wholly void of knowledge, and operating blindly and without any perception, should produce a knowing being, as it is impossible that a triangle should make itself three angles bigger than two right ones. For it is as repugnant to the idea of senseless matter that it should put into itself sense, perception, and knowledge, as it is repugnant to the idea of a

triangle that it should put into itself greater angles than two right ones.

6. *And therefore God.*— Thus from the consideration of ourselves, and what we infallibly find in our own constitutions, our reason leads us to the knowledge of this certain and evident truth, that there is an eternal, most powerful, and most knowing Being; which whether any one will please to call “God,” it matters not. The thing is evident; and from this idea duly considered, will easily be deduced all those other attributes which we ought to ascribe to this Eternal being. [If, nevertheless, any one should be found so senselessly arrogant as to suppose man alone knowing and wise, but yet the product of mere ignorance and chance; and that all the rest of the universe acted only by that blind hap-hazard; I shall leave with him that very rational and emphatical rebuke of Tully, lib. ii. *De Leg.*, to be considered at his leisure: “What can be more sillily arrogant and misbecoming than for a man to think that he has a mind and understanding in him, but yet in all the universe beside there is no such thing? or that those things which, with the utmost stretch of his reason, he can scarce comprehend, should be moved and managed without any reason at all?” *Quid est enim verius quam neminem esse oportere tam stulte arrogantem, ut in se mentem et rationem putet inesse, in cælo mundoque non putet? Aut ea quæ vix summâ ingenii ratione comprehendat, nullâ ratione moveri putet?*]

From what has been said, it is plain to me we have a more certain knowledge of the existence of a God, than of any thing our senses have not immediately discovered to us. Nay, I presume I may say, that we more certainly know that there is a God, than that there

is any thing else without us. When I say “we know,” I mean there is such a knowledge within our reach which we cannot miss, if we will but apply our minds to that as we do to several other inquiries.

7. *Our idea of a most perfect being, not the sole proof of a God.*—How far the idea of a most perfect being which a man may frame in his mind, does or does not prove the existence of a God, I will not here examine. For, in the different make of men’s tempers, and application of their thoughts, some arguments prevail more on one, and some on another, for the confirmation of the same truth. But yet, I think this I may say, that it is an ill way of establishing this truth and silencing atheists, to lay the whole stress of so important a point as this upon that sole foundation: and take some men’s having that idea of God in their minds (for it is evident some men have none, and some worse than none, and the most very different) for the only proof of a Deity; and out of an over-fondness of that darling invention, cashier, or at least endeavour to invalidate, all other arguments, and forbid us to hearken to those proofs, as being weak or fallacious, which our own existence and the sensible parts of the universe offer so clearly and cogently to our thoughts, that I deem it impossible for a considering man to withstand them. For I judge it as certain and clear a truth as can any where be delivered, that “the invisible things of God are clearly seen from the creation of the world, being understood by the things that are made, even his eternal power and Godhead.” Though our own being furnishes us, as I have shown, with an evident and incontestable proof of a Deity; and I believe nobody can avoid the cogency of it who will but as carefully attend to it as to any other demonstration of so many parts:

yet this being so fundamental a truth, and of that consequence that all religion and genuine morality depend thereon, I doubt not but I shall be forgiven by my reader if I go over some parts of this argument again, and enlarge a little more upon them.

8. *Something from eternity.*—There is no truth more evident than that something must be from eternity. I never yet heard of any one so unreasonable, or that could suppose so manifest a contradiction, as a time wherein there was perfectly nothing; this being of all absurdities the greatest, to imagine that pure nothing, the perfect negation and absence of all beings, should ever produce any real existence.

It being then unavoidable for all rational creatures to conclude that something has existed from eternity, let us next see what kind of thing that must be.

9. *Two sorts of beings cogitative and incogitative.*—There are but two sorts of beings in the world that man knows or conceives:—

First, Such as are purely material, without sense, perception, or thought, as the clippings of our beards and parings of our nails.

Secondly, Sensible, thinking, perceiving beings, such as we find ourselves to be; which, if you please, we will hereafter call “cogitative and incogitative beings;” which, to our present purpose, if for nothing else, are perhaps better terms than “material and immaterial.”

10. *Incogitative being cannot produce a cogitative.*—If then there must be something eternal, let us see what sort of being it must be. And to that it is very obvious to reason, that it must necessarily be a cogitative being. For it is as impossible to conceive that ever bare incogitative matter should produce a thinking intelligent being, as that nothing should of itself pro-

duce matter. Let us suppose any parcel of matter eternal, great or small, we shall find it in itself able to produce nothing. For example: Let us suppose the matter of the next pebble we meet with, eternal, closely united, and the parts firmly at rest together; if there were no other being in the world, must it not eternally remain so, a dead, inactive lump? Is it possible to conceive it can add motion to itself, being purely matter, or produce any thing? Matter, then, by its own strength, cannot produce in itself so much as motion: the motion it has must also be from eternity, or else be produced and added to matter by some other being more powerful than matter: matter, as is evident, having not power to produce motion in itself. But let us suppose motion eternal too; yet matter, incogitative matter and motion, whatever changes it might produce of figure and bulk, could never produce thought. Knowledge will still be as far beyond the power of motion and matter to produce, as matter is beyond the power of nothing or nonentity to produce. And I appeal to every one's own thoughts, whether he cannot as easily conceive matter produced by nothing, as thought to be produced by pure matter, when before there was no such thing as thought or an intelligent being existing. Divide matter into as minute parts as you will, which we are apt to imagine a sort of spiritualizing or making a thinking thing of it; vary the figure and motion of it as much as you please; a globe, cube, cone, prism, cylinder, &c., whose diameters are but 100,000th part of a gry,* will operate no otherwise

* A gry is one-tenth of a line, a line one-tenth of an inch, an inch one-tenth of a philosophical foot, a philosophical foot one-third of a pendulum, whose diadroms, in the latitude of forty-five degrees, are each equal to one second of time, or

upon other bodies of proportionable bulk than those of an inch or foot diameter; and you may as rationally expect to produce sense, thought, and knowledge, by putting together in a certain figure and motion gross particles of matter, as by those that are the very minutest that do any where exist. They knock, impel, and resist one another just as the greater do, and that is all they can do. So that, if we will suppose nothing first or eternal, matter can never begin to be; if we will suppose bare matter without motion, eternal motion can never begin to be; if we suppose only matter and motion first, or eternal, thought can never begin to be. [For it is impossible to conceive that matter, either with or without motion could have originally in and from itself, sense, perception, and knowledge, as is evident from hence, that then sense, perception, and knowledge must be a property eternally inseparable from matter and every particle of it. Not to add, that though our general or specific conception of matter makes us speak of it as one thing, yet really all matter is not one individual thing, neither is there any such thing existing as one material being, or one single body, that we know or can conceive. And therefore, if matter were the eternal first cogitative being, there would not be one eternal infinite cogitative being, but an infinite number of eternal finite cogitative beings independent one of another, of limited force and distinct thoughts, which could never produce that order, harmony, and beauty, which are to be found in nature.

one-sixtieth of a minute. I have affectedly made use of this measure here, and the parts of it, under a decimal division, with names to them; because I think it would be of general convenience, that this should be the common measure in the commonwealth of letters.

Since, therefore, whatsoever is the first eternal being must necessarily be cogitative; and] whatsoever is first of all things must necessarily contain in it, and actually have, at least, all the perfections that can ever after exist; nor can it ever give to another any perfection that it hath not, either actually in itself or at least in a higher degree; [it necessarily follows, that the first eternal being cannot be matter.]

11. *Therefore there has been an eternal wisdom.*—If, therefore, it be evident that something necessarily must exist from eternity, it is also as evident that that something must necessarily be a cogitative being; for it is as impossible that incogitative matter should produce a cogitative being, as that nothing, or the negation of all being, should produce a positive being or matter.

12. Though this discovery of the necessary existence of an eternal mind does sufficiently lead us into the knowledge of God, since it will hence follow that all other knowing beings that have a beginning must depend on him, and have no other ways of knowledge or extent of power than what he gives them; and therefore if he made those, he made also the less excellent pieces of this universe, all inanimate beings, whereby his omniscience, power, and providence will be established, and all his other attributes necessarily follow: yet, to clear up this a little farther, we will see what doubts can be raised against it.

13. *Whether material or no* —First, Perhaps it will be said, that though it be as clear as demonstration can make it, that there must be an eternal being, and that being must also be knowing; yet, it does not follow but that thinking being may also be material. Let it be so; it equally still follows that there is a God. For

if there be an eternal, omniscient, omnipotent being, it is certain that there is a God, whether you imagine that being to be material or no. But herein, I suppose, lies the danger and deceit of that supposition: there being no way to avoid the demonstration, that there is an eternal knowing Being, men devoted to matter would willingly have it granted that this knowing Being is material; and then letting slide out of their minds, or the discourse, the demonstration whereby an eternal knowing Being was proved necessarily to exist, would argue all to be matter, and so deny a God, that is, an eternal cogitative Being; whereby they are so far from establishing, that they destroy, their own hypothesis. For if there can be, in their opinion, eternal matter without any eternal cogitative Being, they manifestly separate matter and thinking, and suppose no necessary connexion of the one with the other, and so establish the necessity of an eternal Spirit, but not of matter; since it has been proved already, that an eternal cogitative Being is unavoidably to be granted. Now, if thinking and matter may be separated, the eternal existence of matter will not follow from the eternal existence of a cogitative Being, and they suppose it to no purpose.

14. *Not material: First, Because every particle of matter is not cogitative.*— But now let us see how they can satisfy themselves or others, that this eternal thinking Being is material.

First, I would ask them, whether they imagine that all matter, every particle of matter, thinks? This, I suppose, they will scarce say, since then there would be as many eternal thinking beings as there are particles of matter and so an infinity of gods. And yet, if they will not allow matter as matter, that is, every particle

of matter, to be as well cogitative as extended, they will have as hard a task to make out to their own reasons a cogitative being out of incogitative particles, as an extended being out of unextended parts, if I may so speak.

15. *Secondly, One particle alone of matter cannot be cogitative.*—Secondly, If all matter does not think, I next ask, whether it be only one atom that does so? This has as many absurdities as the other; for then this atom of matter must be alone eternal or not. If this alone be eternal, then this alone, by its powerful thought or will, made all the rest of matter. And so we have the creation of matter by a powerful thought, which is that the materialists stick at: for, if they suppose one single thinking atom to have produced all the rest of matter, they cannot ascribe that pre-eminency to it upon any other account than that of its thinking, the only supposed difference. But allow it to be by some other way which is above our conception, it must be still creation; and these men must give up their great maxim, *Ex nihilo nil fit*. If it be said, that “all the rest of matter is equally eternal as that thinking atom,” it will be to say any thing at pleasure, though ever so absurd: for to suppose all matter eternal, and yet one small particle in knowledge and power infinitely above all the rest, is without any the least appearance of reason to frame any hypothesis. Every particle of matter, as matter, is capable of all the same figures and motions of any other; and I challenge any one, in his thoughts, to add any thing else to one above another.

16. *Thirdly, A system of incogitative matter cannot be cogitative.*—Thirdly, If then neither one peculiar atom alone can be this eternal thinking Being, nor all matter, as matter, *i. e.*, every particle of matter, can be

it; it only remains that it is some certain system of matter duly put together, that is this thinking eternal Being. This is that which, I imagine, is that notion which men are aptest to have of God, who would have him a material being, as most readily suggested to them by the ordinary conceit they have of themselves and other men, which they take to be material thinking beings. But this imagination, however more natural, is no less absurd than the other: for, to suppose the eternal thinking Being to be nothing else but a composition of particles of matter, each whereof is incogitative, is to ascribe all the wisdom and knowledge of that eternal Being only to the juxtaposition of parts; than which nothing can be more absurd. For, unthinking particles of matter, however put together, can have nothing thereby added to them but a new relation of position, which it is impossible should give thought and knowledge to them.

17. *Whether in motion, or at rest.*—But farther; this corporeal system either has all its parts at rest, or it is a certain motion of the parts wherein its thinking consists. If it be perfectly at rest, it is but one lump, and so can have no privileges above one atom.

If it be the motion of its parts on which its thinking depends, all the thoughts there must be unavoidably accidental and limited, since all the particles that by motion cause thought, being each of them in itself without any thought, cannot regulate its own motions, much less be regulated by the thought of the whole, since that thought is not the cause of motion, (for then it must be antecedent to it, and so without it,) but the consequence of it, whereby freedom, power, choice, and all rational and wise thinking or acting, will be quite taken away; so that such a thinking being will be no

better nor wiser than pure blind matter, since to resolve all into the accidental unguided motions of blind matter, or into thought depending on unguided motions of blind matter, is the same thing; not to mention the narrowness of such thoughts and knowledge that must depend on the motion of such parts. But there needs no enumeration of any more absurdities and impossibilities in this hypothesis (however full of them it be) than that before mentioned; since, let this thinking system be all or a part of the matter of the universe, it is impossible that any one particle should either know its own or the motion of any other particle, or the whole know the motion of every particular, and so regulate its own thoughts or motions, or indeed have any thought resulting from such motion.

18. *Matter not co-eternal with an eternal Mind.*—Others would have matter to be eternal, notwithstanding that they allow an eternal, cogitative, immaterial being. This, though it take not away the being of a God, yet, since it denies one and the first great piece of his workmanship, the creation, let us consider it a little. Matter must be allowed eternal; why? Because you cannot conceive how it can be made out of nothing: why do you not also think yourself eternal? You will answer, perhaps, Because about twenty or forty years since you began to be. But if I ask you what that “you” is, which began then to be, you can scarce tell me. The matter whereof you are made began not then to be; for if it did then it is not eternal; but it began to be put together in such a fashion and frame as makes up your body; but yet that frame of particles is not you, it makes not that thinking thing you are; (for I have now to do with one who allows an eternal, immaterial, thinking being, but would have unthinking matter eter-

nal too;) therefore when did that thinking thing begin to be? If it did never begin to be, then have you always been a thinking thing from eternity: the absurdity whereof I need not confute till I meet with one who is so void of understanding as to own it. If, therefore, you can allow a thinking thing to be made out of nothing, (as all things that are not eternal must be,) why also can you not allow it possible for a material being to be made out of nothing by an equal power, but that you have the experience of the one in view, and not of the other? though, when well considered, creation [of a spirit will be found to require no less power than the creation of matter. Nay, possibly, if we would emancipate ourselves from vulgar notions, and raise our thoughts, as far as they would reach, to a closer contemplation of things, we might be able to aim at some dim and seeming conception how matter might at first be made, and begin to exist, by the power of that eternal first Being; but to give beginning and being to a spirit would be found a more inconceivable effect of omnipotent power. But this being what would, perhaps, lead us too far from the notions on which the philosophy now in the world is built, it would not be pardonable to deviate so far from them, or to inquire so far as grammar itself would authorize, if the common settled opinion opposes it; especially in this place, where the received doctrine serves well enough to our present purpose, and leaves this past doubt, that,] the creation or beginning of any one [substance] out of nothing being once admitted, the creation of all other, but the Creator himself, may, with the same ease, be supposed.

19. But you will say, "Is it not impossible to admit of the making any thing out of nothing, since we can-

not possibly conceive it?" I answer, No: Because it is not reasonable to deny the power of an infinite Being because we cannot comprehend its operations. We do not deny other effects upon this ground, because we cannot possibly conceive the manner of their production. We cannot conceive how any thing but impulse of body can move body; and yet that is not a reason sufficient to make us deny it possible, against the constant experience we have of it in ourselves, in all our voluntary motions, which are produced in us only by the free action or thought of our own minds; and are not nor can be the effects of the impulse or determination of the motion of blind matter, in or upon our bodies; for then it could not be in our power or choice to alter it. For example: my right hand writes whilst my left hand is still; what causes rest in one and motion in the other? Nothing but my will, a thought of my mind; my thought only changing, the right hand rests, and the left hand moves. This is matter-of-fact which cannot be denied: explain this, and make it intelligible, and then the next step will be to understand creation: [for the giving a new determination to the motion of the animal spirits (which some make use of to explain voluntary motion) clears not the difficulty one jot, to alter the determination of motion being in this case no easier nor less than to give motion itself; since the new determination given to the animal spirits must be either immediately by thought, or by some other body put in their way by thought, which was not in their way before, and so must owe its motion to thought; either of which leaves voluntary motion as unintelligible as it was before.] In the mean time, it is an overvaluing ourselves, to reduce all to the narrow measure of our capacities, and to conclude all things

impossible to be done whose manner of doing exceeds our comprehension. This is to make our comprehension infinite, or God finite, when what he can do is limited to what we can conceive of it. If you do not understand the operations of your own finite mind, that thinking thing within you, do not deem it strange that you cannot comprehend the operations of that eternal, infinite Mind who made and governs all things, and whom the heaven of heavens cannot contain.

CHAPTER XI.

OF OUR KNOWLEDGE OF THE EXISTENCE OF OTHER THINGS.

1. *It is to be had only by sensation.*—The knowledge of our own being we have by intuition. The existence of a God reason clearly makes known to us, as has been shown.

The knowledge of the existence of any other thing, we can have only by sensation: for, there being no necessary connexion of real existence with any idea a man hath in his memory, nor of any other existence but that of God with the existence of any particular man, no particular man can know the existence of any other being, but only when by actual operating upon him it makes itself perceived by him. For, the having the idea of any thing in our mind no more proves the existence of that thing than the picture of a man evidences his being in the world, or the visions of a dream make thereby a true history.

2. *Instance whiteness of this paper.*—It is therefore the actual receiving of ideas from without that gives us notice of the existence of other things, and

makes us know that something doth exist at that time without us which causes that idea in us, though perhaps we neither know nor consider how it does it: for it takes not from the certainty of our senses, and the ideas we receive by them, that we know not the manner wherein they are produced; *v. g.*, whilst I write this, I have, by the paper affecting my eyes, that idea produced in my mind which whatever object causes, I call "white;" by which I know that that quality or accident (*i. e.*, whose appearance before my eyes always causes that idea) doth really exist and hath a being without me. And of this the greatest assurance I can possibly have, and to which my faculties can attain, is the testimony of my eyes, which are the proper and sole judges of this thing; whose testimony I have reason to rely on as so certain that I can no more doubt, whilst I write this, that I see white and black, and that something really exists that causes that sensation in me, than that I write or move my hand; which is a certainty as great as human nature is capable of concerning the existence of any thing but a man's self alone and of God.

3. *This, though not so certain as demonstration, yet may be called "knowledge," and proves the existence of things without us.*—The notice we have by our senses of the existing of things without us, though it be not altogether so certain as our intuitive knowledge, or the deductions of our reason employed about the clear abstract ideas of our own minds; yet it is an assurance that deserves the name of knowledge. If we persuade ourselves that our faculties act and inform us right concerning the existence of those objects that affect them, it cannot pass for an ill-grounded confidence: for I think nobody can, in earnest, be so sceptic

tical as to be uncertain of the existence of those things which he sees and feels. At least, he that can doubt so far, (whatever he may have with his own thoughts,) will never have any controversy with me: since he can never be sure I say any thing contrary to his own opinion. As to myself, I think God has given me assurance enough of the existence of things without me; since, by their different application, I can produce in myself both pleasure and pain, which is one great concernment of my present state. This is certain, the confidence that our faculties do not herein deceive us is the greatest assurance we are capable of concerning the existence of material beings. For we cannot act any thing but by our faculties, nor talk of knowledge itself but by the help of those faculties which are fitted to apprehend even what knowledge is. But, besides the assurance we have from our senses themselves, that they do not err in the information they give us of the existence of things without us, when they are affected by them, we are farther confirmed in this assurance by other concurrent reasons.

4. *First, Because we cannot have them but by the inlet of the senses.*—First, It is plain those perceptions are produced in us by exterior causes affecting our senses, because those that want the organs of any sense never can have the ideas belonging to that sense produced in their minds. This is too evident to be doubted: and therefore we cannot but be assured that they come in by the organs of that sense, and no other way. The organs themselves, it is plain, do not produce them; for then the eyes of a man in the dark would produce colours, and his nose smell roses in the winter: but we see nobody gets the relish of a pineapple till he goes to the Indies where it is, and tastes it.

5. *Secondly, Because an idea from actual sensation and another from memory are very distinct perceptions.*

— Secondly, Because sometimes I find that I cannot avoid the having those ideas produced in my mind: for though when my eyes are shut, or windows fast, I can at pleasure recall to my mind the ideas of light or the sun, which former sensations had lodged in my memory; so I can at pleasure lay by that idea, and take into my view that of the smell of a rose, or taste of sugar. But if I turn my eyes at noon towards the sun, I cannot avoid the ideas which the light or sun then produces in me. So that there is a manifest difference between the ideas laid up in my memory (over which, if they were there only, I should have constantly the same power to dispose of them, and lay them by at pleasure), and those which force themselves upon me and I cannot avoid having. And therefore it must needs be some exterior cause, and the brisk acting of some objects without me, whose efficacy I cannot resist, that produces those ideas in my mind, whether I will or no. Besides, there is nobody who doth not perceive the difference in himself between contemplating the sun as he hath the idea of it in his memory, and actually looking upon it: of which two his perception is so distinct, that few of his ideas are more distinguishable one from another: and therefore he hath certain knowledge that they are not both memory, or the actions of his mind and fancies only within him; but that actual seeing hath a cause without.

6. *Thirdly, Pleasure or pain, which accompanies actual sensation, accompanies not the returning of those ideas without the external objects.*— Thirdly, Add to this, that many of those ideas are produced in us with pain, which afterwards we remember without

the least offence. Thus the pain of heat or cold, when the idea of it is revived in our minds, gives us no disturbance; which, when felt, was very troublesome, and is again when actually repeated: which is occasioned by the disorder the external object causes in our bodies when applied to them. And we remember the pain of hunger, thirst, or the headache, without any pain at all; which would either never disturb us, or else constantly do it as often as we thought of it, were there nothing more but ideas floating in our minds, and appearances entertaining our fancies, without the real existence of things affecting us from abroad. The same may be said of pleasure accompanying several actual sensations; and, though mathematical demonstration depends not upon sense, yet the examining them by diagrams gives great credit to the evidence of our sight, and seems to give it a certainty approaching to that of demonstration itself. For it would be very strange that a man should allow it for an undeniable truth, that two angles of a figure which he measures by lines and angles of a diagram, should be bigger one than the other, and yet doubt of the existence of those lines and angles which, by looking on, he makes use of to measure that by.

7. *Fourthly, Our senses assist one another's testimony of the existence of outward things.*—Fourthly, Our senses, in many cases, bear witness to the truth of each other's report concerning the existence of sensible things without us. He that sees a fire may, if he doubt whether it be any thing more than a bare fancy, feel it too, and be convinced by putting his hand in it; which certainly could never be put into such exquisite pain by a bare idea or phantom, unless that the pain be a fancy too: which yet he cannot, when the burn is

well, by raising the idea of it, bring upon himself again.

Thus I see, whilst I write this, I can change the appearance of the paper; and, by designing the letters, tell beforehand what new idea it shall exhibit the very next moment, by barely drawing my pen over it; which will neither appear (let me fancy as much as I will) if my hand stand still, or though I move my pen, if my eyes be shut; nor, when those characters are once made on the paper, can I choose afterwards but see them as they are; that is, have the ideas of such letters as I have made. Whence it is manifest that they are not barely the sport and play of my own imagination, when I find that the characters that were made at the pleasure of my own thoughts do not obey them; nor yet cease to be, whenever I shall fancy it, but continue to affect my senses constantly and regularly, according to the figures I made them. To which if we will add, that the sight of those shall, from another man, draw such sounds as I beforehand design they shall stand for, there will be little reason left to doubt that those words I write do really exist without me, when they cause a long series of regular sounds to affect my ears, which could not be the effect of my imagination, nor could my memory retain them in that order.

8. *This certainty is as great as our condition needs.*
— But yet, if after all this any one will be so sceptical as to distrust his senses, and to affirm that all we see and hear, feel and taste, think and do, during our whole being, is but the series and deluding appearances of a long dream whereof there is no reality, and therefore will question the existence of all things or our knowledge of any thing; I must desire him to consider, that if all be a dream, then he doth but dream that he makes

the question; and so it is not much matter that a waking man should answer him. But yet, if he pleases, he may dream that I make him this answer, that the certainty of things existing in *rerum natura*, when we have the testimony of our senses for it, is not only as great as our frame can attain to, but as our condition needs. For, our faculties being suited not to the full extent of being, nor to a perfect, clear, comprehensive knowledge of things free from all doubt and scruple, but to the preservation of us, in whom they are, and accommodated to the use of life, they serve to our purpose well enough, if they will but give us certain notice of those things which are convenient or inconvenient to us. For he that sees a candle burning, and hath experimented the force of its flame by putting his finger in it, will little doubt that this is something existing without him, which does him harm and puts him to great pain; which is assurance enough, when no man requires greater certainty to govern his actions by than what is as certain as his actions themselves. And if our dreamer pleases to try whether the glowing heat of a glass furnace be barely a wandering imagination in a drowsy man's fancy, by putting his hand into it, he may, perhaps, be awakened into a certainty, greater than he could wish, that it is something more than bare imagination. So that this evidence is as great as we can desire, being as certain to us as our pleasure or pain, *i. e.*, happiness or misery; beyond which we have no concernment either of knowing or being. Such an assurance of the existence of things without us, is sufficient to direct us in the attaining the good and avoiding the evil which is caused by them, which is the important concernment we have of being made acquainted with them.

9. *But reaches no farther than actual sensation.—*

In fine, then, when our senses do actually convey into our understandings any idea, we cannot but be satisfied that there doth something at that time really exist without us which doth affect our senses, and by them give notice of itself to our apprehensive faculties, and actually produce that idea which we then perceive: and we cannot so far distrust their testimony as to doubt that such collections of simple ideas as we have observed by our senses to be united together, do really exist together. But this knowledge extends as far as the present testimony of our senses, employed about particular objects that do then affect them, and no farther. For if I saw such a collection of simple ideas as is wont to be called “man” existing together one minute since, and am now alone; I cannot be certain that the same man exists now, since there is no necessary connexion of his existence a minute since with his existence now: by a thousand ways he may cease to be, since I had the testimony of my senses for his existence. And if I cannot be certain that the man I saw last to-day is now in being, I can less be certain that he is so who hath been longer removed from my senses, and I have not seen since yesterday, or since the last year; and much less can I be certain of the existence of men that I never saw. And therefore, though it be highly probable that millions of men do now exist, yet, whilst I am alone writing this, I have not that certainty of it which we strictly call “knowledge;” though the great likelihood of it puts me past doubt, and it be reasonable for me to do several things upon the confidence that there are men (and men also of my acquaintance, with whom I have to do) now in the world: but this is but probability, not knowledge.

10. *Folly to expect demonstration in every thing.*—Whereby yet we may observe how foolish and vain a thing it is for a man of a narrow knowledge, who having reason given him to judge of the different evidence and probability of things, and to be swayed accordingly; how vain, I say, it is to expect demonstration and certainty in things not capable of it, and refuse assent to very rational propositions, and act contrary to very plain and clear truths, because they cannot be made out so evident as to surmount every the least (I will not say reason, but) pretence of doubting. He that in the ordinary affairs of life would admit of nothing but direct plain demonstration, would be sure of nothing in this world but of perishing quickly. The wholesomeness of his meat or drink would not give him reason to venture on it: and I would fain know what it is he could do upon such grounds as were capable of no doubt, no objection.

11. *Past existence is known by memory*—As, when our senses are actually employed about any object, we do know that it does exist, so by our memory we may be assured that heretofore things that affected our senses have existed. And thus we have knowledge of the past existence of several things, whereof our senses having informed us, our memories still retain the ideas; and of this we are past all doubt so long as we remember well. But this knowledge also reaches no farther than our senses have formerly assured us. Thus, seeing water at this instant, it is an unquestionable truth to me that water doth exist; and remembering that I saw it yesterday, it will also be always true. and, as long as my memory retains it, always an undoubted proposition to me, that water did exist the 10th of July 1688, as it will also be equally true that a certain

number of very fine colours did exist, which at the same time I saw upon a bubble of that water: but being now quite out of sight both of the water and bubbles too, it is no more certainly known to me that the water doth now exist, than that the bubbles or colours therein do so; it being no more necessary that water should exist to-day because it existed yesterday, than that the colours or bubbles exist to-day because they existed yesterday, though it be exceedingly much more probable, because water hath been observed to continue long in existence, but bubbles and the colours on them quickly cease to be.

12. *The existence of spirits not knowable.*—What ideas we have of spirits, and how we come by them, I have already shown. But though we have those ideas in our minds, and know we have them there, the having the ideas of spirits does not make us know that any such things do exist without us, or that there are any finite spirits, or any other spiritual beings but the eternal God. We have ground from revelation, and several other reasons, to believe with assurance that there are such creatures; but, our senses not being able to discover them, we want the means of knowing their particular existences. For we can no more know that there are finite spirits really existing by the idea we have of such beings in our minds, than by the ideas any one has of fairies or centaurs he can come to know that things answering those ideas do really exist.

And therefore concerning the existence of finite spirits, as well as several other things, we must content ourselves with the evidence of faith; but universal certain propositions concerning this matter are beyond our reach. For, however true it may be, *v. g.*, that all the intelligent spirits that God ever created do still

exist, yet it can never make a part of our certain knowledge. These and the like propositions we may assent to as highly probable, but are not, I fear, in this state capable of knowing. We are not, then, to put others upon demonstrating, nor ourselves upon search of, universal certainty in all those matters wherein we are not capable of any other knowledge but what our senses give us in this or that particular.

13. *Particular propositions concerning existences are knowable.*—By which it appears that there are two sorts of propositions. (1.) There is one sort of propositions concerning the existence of any thing answerable to such an idea; as having the idea of an elephant, phoenix, motion, or an angel in my mind, the first and natural inquiry is, whether such a thing does any where exist. And this knowledge is only of particulars. No existence of any thing without us, but only of God, can certainly be known farther than our senses inform us. (2.) There is another sort of propositions, wherein is expressed the agreement or disagreement of our abstract ideas, and their dependence one on another. Such propositions may be universal and certain. So having the idea of God and myself, of fear and obedience, I cannot but be sure that God is to be feared and obeyed by me: and this proposition will be certain concerning man in general, if I have made an abstract idea of such a species, whereof I am one particular. But yet this proposition, how certain soever, that men ought to fear and obey God, proves not to me the existence of men in the world, but will be true of all such creatures whenever they do exist: which certainty of such general propositions depends on the agreement or disagreement is to be discovered in those abstract ideas.

14. *And general propositions concerning abstract ideas.*—In the former case, our knowledge is the consequence of the existence of things producing ideas in our minds by our senses: in the latter, knowledge is the consequence of the ideas (be they what they will) that are in our minds, producing their general certain propositions. Many of these are called *æternæ veritates*, and all of them indeed are so; not from being written all or any of them in the minds of all men, or that they were any of them propositions in any one's mind till he, having got the abstract ideas, joined or separated them by affirmation or negation. But wheresoever we can suppose such a creature as man is, endowed with such faculties, and thereby furnished with such ideas, as we have, we must conclude he must needs, when he applies his thoughts to the consideration of his ideas, know the truth of certain propositions that will arise from the agreement or disagreement which he will perceive in his own ideas. Such propositions are therefore called “eternal truths,” not because they are eternal propositions actually formed, and antecedent to the understanding that at any time makes them; nor because they are imprinted on the mind from any patterns that are any where of them out of the mind, and existed before; but because, being once made about abstract ideas so as to be true, they will, whenever they can be supposed to be made again at any time past or to come, by a mind having those ideas, always actually be true. For, names being supposed to stand perpetually for the same ideas, and the same ideas having immutably the same habitudes one to another, propositions con-

cerning any abstract ideas that are once true must needs be eternal verities.

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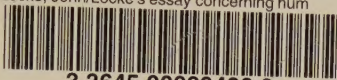
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